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An Empirical Investigation of Management Accounting and Control Systems Change in Two Libyan State-owned Manufacturing Companies An Institutional Perspective

Ali, Alhashmi

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An Institutional Perspective

Alhashmi Ali

2014

University of Dundee

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School of Business

**An Empirical Investigation of Management Accounting and Control
Systems Change in Two Libyan State-owned Manufacturing
Companies: An Institutional Perspective**

Alhashmi Aboubaker Abdelgader Ali

A Thesis Submitted to the University of Dundee in Fulfilment of the
Requirements of the Degree of Doctor of Philosophy in Accounting

School of Business
University of Dundee
Dundee, Scotland, UK

February 2014

Dedication

I wish to dedicate this thesis to my parents to whom I am forever grateful.

I wish also to dedicate this thesis to my wife Fatma, my daughter Remas, my brothers and my sisters.

Thank you all for your love and support

Table of Contents

Dedication	ii
Table of Contents	iii
List of Tables	xii
List of Figures.....	xiii
List of Appendices	xiv
Acknowledgments	xv
Declaration.....	xvi
Abstract.....	xvii
Chapter One: Introduction	1
1.1 Research Focus.....	1
1.2 Research Rationale and Motivation	6
1.3 The Reason for the Choice of the Particular Organizations under Study	10
1.4 Theoretical Framework, Research Methodology and Methods	11
1.5 Structure of the Thesis.....	13
Chapter Two: The Libyan Business Environment	17
2.1 Introduction	17
2.2 The Socio-Cultural Environment in Libya.....	17
2.2.1 Geographical Location and Population	17
2.2.2 Libyan History	19
2.2.3 Education in Libya.....	20
2.3 The Political and Legal Environments in Libya.....	26
2.3.1 The Political Regime in Libya and Recent Changes	26
2.3.2 The Libyan Legal System.....	34
2.4 The Libyan Economic Environment	37
2.4.1 The Libyan Economy before the Discovery of Oil	37
2.4.2 The Libyan Economy after the Discovery of Oil	39
2.4.3 Development Plans of Libya since Independence	45
2.4.4 The Impact of International Sanctions on the Libyan Economy	50
2.4.5 The Budget of Libya.....	53

2.5 Accounting Profession	57
2.6 Summary	59
Chapter Three: Literature Review.....	61
3.1 Introduction	61
3.2 The Role of Management Accounting	61
3.3 The Development of Management Accounting	63
3.4 The Concept of Management Accounting Change	66
3.5 Dimensions of Management Accounting Change.....	70
3.5.1 Introduction of New Techniques Where No Management Accounting Previously Existed (Addition)	71
3.5.2 Introduction of New Techniques as Replacements for Existing Ones (Replacement)	73
3.5.3 Modification in the Management Accounting Information (Outputs Modification)	74
3.5.4 Modification of the Technical Nature of a Management Accounting System or Technique (Operational Modification)	75
3.5.5 Removal of a Management Accounting System with no Replacement (Reduction)	76
3.6 Factors Causing Management Accounting Change	76
3.6.1 Environmental Factors.....	78
3.6.2 Macro - Context Factors (External Factors)	79
3.6.2.1 Competition.....	80
3.6.2.2 Market	82
3.6.2.3 Consumers.....	83
3.6.3 Micro-organizational Factors (Internal Factors).....	86
3.6.3.1 Organizational Structure	86
3.6.3.2 Managerial Policies.....	88
3.6.3.3 Production Technology	88
3.6.3.4 Employees	91
3.6.3.5 Problems of Existing Techniques	92
3.6.3.6 Deterioration of Financial Performance.....	93

3.7 Perspectives on Management Accounting Change	95
3.7.1 Neo - classical Economic Theory	96
3.7.2 Structuration Theory	97
3.7.3 Structuration Theory and Management Accounting Change	98
3.7.4 Agency Theory: Principal - Agent Relationship	100
3.7.5 Agency Theory and Management Accounting Change.....	102
3.7.6 Contingency Theory	104
3.7.7 Contingency Theory and Management Accounting Change.....	105
3.7.8 Institutional Theory and Management Accounting Change.....	111
3.7.8.1 Old Institutional Economics and Management Accounting Change	111
3.7.8.2 New Institutional Sociology and Management Accounting Change	114
3.7.8.3 Studies Using the Hybrid - Institutional Framework of OIE and NIS.....	117
3.7.9 Actor - Network Theory	118
3.7.10 Actor - Network Theory and Management Accounting Change	119
3.7.11 Critical Theory and Management Accounting Research.....	121
3.8 Resistance to Management Accounting Change	122
3.9 Previous Studies on Management Accounting in the Libyan Context.....	126
3.10 Summary	129
Chapter Four: Theoretical Framework.....	132
4.1 Introduction	132
4.2 Institutional Theory	133
4.3 New Institutional Sociology (NIS) and Its Assumptions	135
4.4 Isomorphism in Management Accounting	140
4.4.1 Institutional Isomorphism.....	140
4.4.1.1 Coercive Isomorphism	142
4.4.1.2 Mimetic Isomorphism.....	143
4.4.1.3 Normative Isomorphism	145
4.4.2 Competitive Isomorphism	146
4.5 Power and Institutional Theory	149
4.5.1 Power and Political Factors	149
4.5.2 Power in NIS	150

4.5.3 Power in OIE	151
4.6 The Main Limitations of NIS	154
4.7 A Framework for the Study of MACS	157
4.8 Justifications for Adopting Institutional Theory	159
4.9 Summary	163
Chapter Five: Research Methodology and Methods	165
5.1 Introduction	165
5.2 Philosophical Assumptions	165
5.2.1 Assumptions Regarding the Nature of Social Science	166
5.2.2 Assumptions about the Nature of Society	168
5.2.3 Burrell and Morgan Classification Framework	169
5.2.4 Alternatives to Burrell and Morgan's Framework	171
5.2.4.1 Laughlin's (1995) Framework: "Middle-Range Thinking Approach"	174
5.2.4.2 Chua's (1986) Framework	181
5.3 Philosophical Assumptions Underpinning this Study.....	182
5.3.1 Ontological, Epistemological and Human Nature Assumptions	182
5.3.2 Assumptions Regarding the Nature of Society.....	183
5.3.3 Methodological Choice.....	184
5.4 Research Methods	185
5.4.1 Case Study Approach	185
5.4.1.1 Strengths of Case Studies.....	189
5.4.1.2 Critique of Case Studies.....	190
5.4.2 Data Collection Methods	192
5.4.2.1 Interviews.....	193
5.4.2.2 Document Analysis	195
5.4.2.3 Observation	196
5.4.2.3.1 Direct Observation	196
5.4.2.3.2 Participant Observation	196
5.5 Access to Data.....	197
5.6 The Process of Conducting and Analyzing Data	197
5.7 Summary	200

Chapter Six: Case Study No. 1:	202
A Discussion of the MACS in the First Company	202
6.1 Introduction	202
6.2 An Overview of the Company's History	202
6.3 The Objectives of the Company	205
6.4 The Quality and Environment Policy	206
6.5 The Organizational Structure of the Company	208
6.6 Management Accounting and Control Systems	212
6.6.1 Planning Systems	212
6.6.1.1 Strategic Planning System	212
6.6.1.2 The Estimated Budget	213
6.6.1.3 Operations Planning (Production)	214
6.6.2 Controlling Systems	215
6.6.2.1 Quality Management System	216
6.6.2.2 Measurement of Performance in Terms of Customer Satisfaction	217
6.6.3 Costing Systems	217
6.6.3.1 Direct Allocation of Manufacturing Overhead	220
6.6.3.2 Direct Allocation of Marketing Costs	221
6.6.3.3 The Pricing System	222
6.6.4 Directing Systems	223
6.6.4.1 The Incentives System	223
6.6.5 Decision-Making Systems	228
6.6.5.1 Reporting System	228
6.7 Changes in the AC's Management Accounting and Control Systems	229
6.7.1 Introduction of New System where no Management Accounting previously existed	229
6.7.1.1 Strategic Planning System	230
6.7.1.2 Quality Management System	234
6.7.1.3 Measurement of Performance in Terms of Customer Satisfaction	235
6.7.1.4 Direct Allocation of Marketing Costs	236
6.7.2 Modification in the Management Accounting Information or Outputs	237

6.7.2.1 The Estimated Budget.....	237
6.7.2.2 Reporting System.....	239
6.8 Factors that Caused Changes.....	239
6.8.1 Institutional Factors	240
6.8.1.1 The Political Pressures and Organizational Legitimacy	240
6.8.1.2 The Libyan Government's Laws and Regulations.....	242
6.8.1.3 Leading Organizations' Pressures.....	244
6.8.1.4 Copying the Best Practices from Other Organizations	245
6.8.2 The Market and Competitive Pressures	246
6.8.3 The Managers of the Company (Power).....	247
6.9 Resistance to Change	249
6.10 Summary	252
Chapter Seven: Case Study No. 2:.....	254
A Discussion of the MACS in the Second Company.....	254
7.1 Introduction	254
7.2 An Overview of the Company's History.....	254
7.3 The Company's Activities.....	257
7.4 The Company's Objectives	259
7.5 The Organizational Structure of the Company	260
7.6 Management Accounting and Control Systems	263
7.6.1 Planning Systems.....	263
7.6.1.1 The Estimated Budget.....	264
7.6.2 Controlling Systems	267
7.6.2.1 Measurement of Performance	268
7.6.3.1 The Costing System	271
7.6.3.2 The Pricing System	274
7.6.4 Directing Systems.....	276
7.6.4.1 Incentives and Financial Subsidies System	276
7.6.5 Decision-Making Systems	277
7.6.5.1 The Reporting System.....	278
7.7 Changes in the BC's Management Accounting and Control Systems	280

7.7.1 Modification in the Management Accounting Information or outputs.....	280
7.7.1.1 The Estimated Budget.....	281
7.7.1.2 The Reporting System.....	283
7.7.2 Removal of the Management Accounting System with no Replacement	284
7.7.2.1 Quality Management System.....	284
7.7.2.2 Removing the Allocation of the Rising / Elevation of the Fixed Assets from the Costing and Pricing System:	286
7.8 Factors that Caused Changes.....	288
7.8.1 Institutional Factors	288
7.8.1.1 The Libyan Government's Laws and Regulations.....	288
7.8.1.2 Customers Satisfaction.....	290
7.8.1.3 Organizational Characteristics	291
7.8.1.4 Copying Management Accounting Practices from Other Companies	292
7.8.2 The Market and Competitive Pressures	292
7.8.3 The Managers of the Company	294
7.9 Resistance to Change	296
7.10 Summary	298
Chapter Eight: Cross Cases and Discussion.....	300
8.1 Introduction	300
8.2 Reflection on the Case Studies in the Libyan Context.....	301
8.3 The Change in the Organizational Structure	303
8.4 The Nature of Change in the MACS	305
8.5 Institutional Isomorphism and the MACS in the Studied Companies	308
8.5.1 Coercive Isomorphism and the MACS.....	309
8.5.2 Mimetic Isomorphism.....	316
8.5.3 Normative Isomorphism	318
8.6 Market Forces and the MACS.....	320
8.7 Intra - organizational Power Relations and the MACS	325
8.8 Resistance to Change	332
8.9 Summary	335
Chapter Nine: Summary and Conclusion.....	338

9.1 Introduction	338
9.2 The Main Findings of the Study.....	339
9.3 Contributions of the Study	348
9.4 Limitations of the Study	351
9.5 Future Research.....	352
References	354
Appendices.....	378

Abbreviations

MACS	Management Accounting and Control Systems
MAPs	Management Accounting Practices
MA	Management Accounting
TQM	Total Quality Management
SCM	Strategic Cost Management
QMS	Quality Management System
OIE	Old Institutional Economics
NIS	New Institutional Sociology
OIS	Old Institutional Sociology
WTO	World Trade Organization
AC	The First Company
BC	The Second Company
IVECO	Industrial Vehicles Corporation
LD	Libyan Dinars
RCC	the Revolution Command Council
LGPC	The Libyan General People's Congress
GPC	The General People's Congress
BPCs	The Basic People's Congress
GNC	the General National Congress
PC	Executive People's Committee
SC	The Security Council
LNTC	the Libyan Transitional National Council
GDP	Gross Domestic Product
LAAA	the Libyan Accountants and Auditors Association
ANT	Actor-Network Theory

List of Tables

Table 2.1	The Number of Schools and Students 1970-75.....	23
Table 2.2	The Increases in the Number of Pupils, Teachers and Classrooms 1968-1974.....	24
Table 2.3	Government Revenue and Expenditure 1954/55-1958/59.....	38
Table 2.4	The Libyan GDP and per Capita Income 1967-2001.....	40
Table 2.5	The Value of the Losses Caused by the Sanctions from 1998-1999.....	53
Table 2.6	The Summary of Actual Revenues and Expenditures (LD Million).....	56
Table 4.1	Drivers of Convergence and Divergence of Management Accounting Practices.....	141
Table 4.2	The Three Dimensions of Power.....	152
Table 5.1	Some Key Characteristics of the Dominant Schools of Thought.....	180
Table 5.2	Chua's (1986) Classification of Philosophical Assumptions.....	181
Table 5.3	Case Study Tactics for Four Design Tests.....	192
Table 6.1	The Different Types of Products at the AC.....	204
Table 8.1	A Typology of Management Accounting Change in the AC and the BC.....	307

List of Figures

Figure 1.1	The Structure of the Thesis.....	16
Figure 2.1	The Map of Libya.....	18
Figure 2.2	The Structure of the Libyan Political System.....	29
Figure 3.1	The Three Sub-groups of Macro-Context (External Factors).....	85
Figure 3.2	The Six Sub-groups of Micro-organizational Factors (Internal Factors)...	94
Figure 3.3	The Dimensions of the Duality of Structure.....	98
Figure 3.4	The Process of Management Accounting Change.....	106
Figure 3.5	Shows the Accounting Change Model.....	107
Figure 4.1	Drivers of Homogeneity in Organizational Forms and Practices: NIS View.....	148
Figure 4.2	The Theoretical Framework of the Study.....	158
Figure 5.1	Burrell and Morgan's (1979) Paradigms for the Analysis of Social Theory.....	170
Figure 5.2	Shows the Classification of Accounting Research.....	173
Figure 5.3	Characteristics of Alternative Schools of Thought in Accounting Research.....	175
Figure 6.1	Shows the Framework of Strategic Planning at the AC.....	233

List of Appendices

Appendix 1: Letter of Introduction.....	379
Appendix 2: Letter to Organization.....	381
Appendix 3: Semi-Structured Interviews Questions.....	382
Appendix 4: List of Sub-Systems in MACS.....	386
Appendix 5: Semi-Structured Interviews Questions in Arabic.....	387
Appendix 6: illustrates Managers, heads and Accountants who Conducted Interviews In the First Company (AC).....	389
Appendix 7: illustrates Managers, heads and Accountants who Conducted Interviews In the Second Company (BC).....	390
Appendix 8: The Current Organizational Structure of AC.....	391
Appendix 9: The Previous Organizational Structure of AC.....	399
Appendix 10: The Current Organizational Structure of BC.....	404
Appendix 11: The Previous Organizational Structure of BC.....	405
Appendix 12: List of Documents related to AC and BC.....	406

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I would also like to thank my friends and colleagues who helped me in many other ways.

Declaration

I hereby declare that I am the author of this thesis; that the work of which this thesis is a record has been done by myself, and that it has not previously been accepted for a higher degree.

Signed..... Date.....

Mr. Alhashmi. A. Ali

Certificate

We certify that Mr. Alhashmi A. Ali has worked the equivalent of nine terms on this research, and that the conditions of the relevant ordinance and regulations have been fulfilled.

Signed..... Date.....

Prof. Jim Haslam

Signed..... Date.....

Prof. Robin Roslender

Abstract

This thesis addresses two case studies of two large state-owned manufacturing companies in Libya. The study focuses on management accounting and control system (MACS) changes within the two companies. The study is motivated by the paucity of literature on management accounting practices in the developing countries in general and in Libya in particular. The case study approach adopted in conducting the present research was useful in exploring the dynamics of the MACS in the two organizations. Data were collected from three sources of evidence. Firstly, semi-structured interviews were conducted with managers, heads of offices and accountants of each company. The participants were selected from different backgrounds and managerial levels so as to provide broader understanding of the operations of the MACS. Secondly, observations include the direct observation and the participant observation. Finally, various documents were reviewed to provide supporting evidence for the interview results.

New institutional sociology (NIS) perspective provided the theoretical framework to interpret and analyze the findings. NIS provided explanations regarding how the MACS in the two companies were shaped by various external and internal factors. The main factors identified in shaping the operations of the MACS were the need to comply with the political pressures, the Libyan government's laws and regulations, the instructions imposed by the management committee in both companies, leading organizations' pressures (ISO), customers' satisfaction (coercive isomorphism), the influence of professional associations (normative isomorphism) and the need to imitate efficient organizations in order to be more legitimate and successful (mimetic isomorphism). The study also investigates the interplay between the institutional forces, market forces and intra - organizational power relationships. This analysis is essential to overcome the criticism of NIS that it downplays the role of market forces and intra - organizational power relations. The findings of the study have implications for understanding the operations of MACS in developing countries.

Chapter One: Introduction

1.1 Research Focus

Change in management accounting can be defined as the ability of management accounting systems to adapt to change in an organization's internal and external environment (Macy and Arunachalam, 1995). Wijewardena and De Zoysa (1999) stated that management accounting should respond to any change in the environment and accountants must make timely changes in their systems if accounting is to contribute more effectively to the success of organizations. It is argued that there is a cause - effect relationship between the business environment and management accounting systems, where any change in the former will result in a change in the latter (Kaplan, 1985; Wijewardena and De Zoysa, 1999). Change in management accounting has increasingly become a focus for research. As Burns and Scapens (2000, p. 3) state, "... *[m]anagement accounting change has become a topic of much debate in recent years. Whether management accounting has not changed, has changed, or should change, have all been discussed*".

Despite much debate on this topic, there is no consensus yet as to a clear – cut definition of change in management accounting. Indeed, the exact nature of changes has often been taken for granted by most researchers and its definition has been avoided (Quattrone and Hopper, 2001). In general, many researchers have concentrated on change in management accounting as an outcome rather than emphasizing the process involved in implementing or introducing new management accounting systems or in modifying existing systems within organizations (see for example, Innes and Mitchell, 1990; Cobb *et al*, 1995; Libby and Waterhouse, 1996; Williams and Seaman, 2001; Granlund, 2001; Burns and Vaivio, 2001; Kasurinen, 2002;

Akbar, 2010; Jansen, 2011). Change in management accounting is not homogeneous. In this respect, Hopwood (1987) argues that accounting is a dynamic and heterogeneous phenomenon, so accounting systems should change over time. He states that relatively little is understood about the process of change in management accounting (ibid). Change has different dimensions or types. Rather, there is no general agreement upon definition of change in management accounting (Granlund, 2001). Sulaiman and Mitchell (2005) also demonstrated that change can be classified in the following ways: (i) introduction of new techniques / systems as replacement for the existing ones, (ii) introduction of new techniques / systems where no management accounting previously existed, (iii) modification in the management accounting information or output, (iv) modification of the technical nature of a management accounting system and (v) removal of a management accounting technique / system without replacement.

Change in management accounting is not a uniform phenomenon. Therefore, one might expect the causal factors of change also to be different and this has indeed been confirmed by management accounting researchers. It is clear that both the external factors (macro - factors) and internal factors (micro - factors) relating to the organization concerned have influenced the recent development of new management accounting techniques. According to Shields (1997), the potential change drives are competition, operations technologies, information processing technologies and organizational designs. These factors have encouraged new advanced management accounting techniques such as Activity - Based Costing (ABC) (Anderson, 1995; Anderson and Young, 2001), Balanced Scorecard (BSC) (Kaplan and Norton, 1992), Strategic Cost Management (SCM) (Shank (1996) and Just – in - Time (JIT) (Kaplan, 1986) to be adopted. The drivers of change have also been categorized into the

specific classifications of motivators, catalysts and facilitators (Innes and Mitchell, 1990) and these indicate the differing roles which causal factors can have in the process of change. Change in the environment also means uncertainty and risk which create a demand for further change in management accounting in the form of non - financial measures (Vaivio, 1999).

Innovations in management accounting (e.g., ABC and BSC) have been suggested as a solution for the substitution of traditional management accounting systems in order to respond to changes that have occurred in the business environment. However, many researchers have criticized new management accounting systems (Drury *et al*, 1993; Innes and Mitchell, 1995). For instance, Innes and Mitchell (1995) pointed out that ABC is used by some of the UK's largest companies, but it has been rejected by approximately 13% of UK companies after assessment. Drury *et al* (1993) argued that traditional management accounting systems have continued to be used. In this regard, Scapens (2000) pointed out that in many organizations change took place in management accounting systems. Nevertheless, this change was in conventional management accounting systems used in organizations, rather than the adoption of advanced management accounting techniques such as ABC, BSC and Strategic Management Accounting (SMA). This is also the case of the current study. In a sense, the current study found that most management accounting systems or techniques are traditional systems and there was no adoption of advanced management accounting techniques (such as ABC and BSC) in the two companies studied. The only new system adopted is the quality management system (QMS) (see Chapters 6 and 7).

In spite of the fact that change can be studied from the perspectives of its nature and causes, it is also relevant to examine the main reasons of resistance to change in management accounting in organizations. Changes to management accounting might not be accepted and

the barriers causing this represent resistance to change. Numerous studies on this aspect have investigated the nature of change resistance and the reasons for it (Foster and Ward, 1994; Scapens and Roberts, 1993; Hardy, 1996; Burns and Scapens, 2000; Siti - Nabiha, 2000). Moreover, research pertinent to change in management accounting has utilized a variety of theoretical frameworks and a range of different research methods. The former include the following: agency theory - the principal - agent relationship (Eisenhardt, 1989; Baiman, 1982, 1990; Indjejikian, 1999), contingency theory framework (Otely, 1980; Innes and Mitchell, 1990; Jones, 1985; Fisher, 1995; Chenhall, 2003), Giddens' theory of structuration has been proposed as a useful framework of conducting alternative management accounting research by some researchers (Giddens, 1984; Macintosh and Scapens, 1990; Macintosh, 1994; Conrad, 2005; Busco, 2009; Moore, 2011), the institutional theory context that highlights the rules, routines and practices of organizational processes according to old institutional economics (OIE) perspective (Burns *et al*, 1999; Burns and Scapens, 2000) as well as the new institutional sociology (NIS) perspective that highlights the institutional and competitive isomorphism between organizations (DiMaggio and Powell, 1983, 1991) and the organizational and social context with a focus on power and knowledge relations (Covaleski *et al*, 1996). The latter include both the case study (Amat *et al*, 1994; Anderson, 1995; Shank, 1996) and the survey method which has not been widely used in the area of change in management accounting (Libby and Waterhouse, 1996; Williams and Seaman, 2001). Each approach or method has its strengths and weaknesses. Both approaches are appropriate in answering different questions. However, the case study approach is more appropriate for studies of change in management accounting (Yin, 2003).

For the current study, the main aim is to investigate change in the management accounting and control systems (MACS) in relation to the change in the Libyan business environment. Thus, this study seeks to explore the change in the MACS after the economic deregulation in Libya over the period of time stretching from 2003 to 2013. It also investigates the influence of institutional factors on the MACS as well as the main causes of resistance to change. In order to achieve this aim, the following questions are addressed in this study:

1. What types of MACS are currently applied in Libyan state - owned manufacturing companies?
2. What types of changes that have taken place in any of the MACS in Libyan state - owned manufacturing companies?
3. Why and how these MACS changes have taken place in Libyan state - owned manufacturing companies?
4. Is there any resistance to change in any of the MACS used in Libyan state - owned manufacturing companies?

The remainder of this chapter is organized as follows: Section 1.2 explains the research rationale and motivation. Section 1.3 explains the reason for the choice of the particular organizations under study. Section 1.4 highlights the theoretical framework, methodology and methods employed in the current thesis. Finally, section 1.5 outlines the structure of this thesis.

1.2 Research Rationale and Motivation

The subject of change in management accounting has been the central issue of a large number of studies for the past four decades (e.g., Jones, 1985; Innes and Mitchell, 1990; Libby and Waterhouse, 1996; Burns and Scapens, 2000; Alkizza, 2006; Jansen, 2011; Zoubi, 2011). In this respect, much has been written in Western literature about change in management accounting in developed countries and their environments, but relatively little has been written by local writers about accounting change in developing countries. Few studies attempted to address the relationship between management accounting and the business environment within which organizations operate (ibid). This business environment is divided into external factors (environmental factors) and internal factors (organizational factors). For more explanation, after reviewing the literature on change in management accounting (see Chapter 3), the researcher identified two relatively neglected areas which provide a focus for the present study. First, there is little research which takes account of the nature of change or different types of change in management accounting. Second, several management accounting studies have identified factors that bring about change in management accounting, but have not explored the specific significance of each factor to the organization's MACS. In the case of Libya, to date, there is very little research about change in management accounting (e.g., Alkizza, 2006; Zoubi, 2011). It appears that no study has been conducted that focuses on the MACS change in the Libyan public industrial companies within their developmental environment by using the NIS perspective. As a result of this lack of knowledge about change in management accounting, it was felt that intensive research was needed to explore and understand the state of the MACS as practices in economic transition conditions in one of the developing countries, namely Libya.

Nevertheless, there is an increasing interest in research that targets the study of change in management accounting in the emerging and transitional economies in the former socialist European countries (Haldma and Laats, 2002), in eastern Asia (Hoque and Hopper, 1994, 1997; O'Connor *et al*, 2004) and in Africa (Lather and Langden, 2001; Waweru *et al*, 2004). The common characteristic of the studies conducted on the emerging economies which distinguishes them from those conducted on the developed countries is their focus on the change in the broad political and economic systems, by considering them as the key factors causing change in the management accounting practices (MAPs). For instance, Luther and Longden (2001) and Haldma and Laats (2002) identified new factors that are more related to transitional and emerging economies such as the legal accounting environment and shortage of qualified accountants. Luther and Longden (2001) also concluded that the benefits derived from MAPs in South Africa differ from the UK and the identified factors that influence change in management accounting in South Africa are different from those which influence it in the UK. In the same vein, Hoque and Hopper (1997) concluded that macro - context factors, such as the political climate, government regulations, competition, industrial relations and aid agencies, influenced factors related to the budgetary procedures (e.g., budget evaluation, participation, flexibility) in the studied firm, a Bangladeshi company. The above studies in developing countries indicate that, despite the tremendous political, economic and social changes affecting businesses in these countries, traditional MAPs are still dominant, while there is no evidence of the use of the so - called advanced management accounting techniques, such as ABC and BSC.

In the Libyan case, the transition from a planned economy to a market economy, which was initiated in the late 1980s, has resulted in fundamental changes in the regulatory context such

as the restructuring and privatizing of state - owned organizations, a remarkable growth in foreign direct investment and an emerging private sector (Sharif, 2000; Al - Gaddafi, 2002). The deregulation of the economic system has also reduced the role of the Libyan government to be limited to some public activities such as health, education and security (Sharif, 2000). Thus, a new Libyan business environment has emerged within which Libyan companies operate, especially those that are state – owned and encounter increasing competition which causes deterioration in their financial performances (ibid). This change also was a result of the crises that the Libyan economy faced in the late 1980s and the early 1990s when the country's economic situation and standards of living worsened as a result of the political and economic sanctions imposed by the US and UN since the late 1980s which caused a serious decline in the Libyan economic activity (Ali, 2010). However, after the US and UN lifted their sanctions in September 2003, the Libyan government has also embarked on a series of social, economic and legal reforms. It has demonstrated its intention to move towards a free market. Thus, a number of laws and resolutions were issued by the General People's Congress (GPC) in the past few years in order to enhance economic development and to move the country from a centrally controlled economy to a liberalized economy by encouraging the private sector to emerge again and attracting foreign investments. In addition, Libya has joined the World Trade Organization (WTO) and thus most of the laws are being reviewed in the context of the WTO requirements (Ali, 2010).

In addition, after the 2011 Libyan revolution, the business environment has also witnessed radical changes in the Libyan socio - economic and political context, market and regulations systems (see Chapter 2). Therefore, the 2011 Libyan revolution is also considered as one of the events that affected the Libyan economy in recent years. Consequently, all these changes

have put immediate pressure on accounting practices to change in order to meet the demands of the new business environment. In other words, changes may also have led to the development of MAPs to provide information relevant to this new business environment. Yazdifar (2003) argues that the characteristics of the new business environment are described as greater dynamism, uncertainty and continuous radical change. This new environment affects not only manufacturing companies, but also organizations in all other sectors. It influences production processes and post - production activities as well as organizational structures, business strategies and managerial philosophies (ibid).

Based on the above discussion, the current study focuses on the change in the MACS utilized in two large Libyan state - owned manufacturing companies as a response to the change masterminded by the state in its economic system from a centrally planned to a market based mechanism as well as the change in the political and economic system that occurred in Libya in recent years. The study also introduces the findings of two case studies that explored the processes of the MACS change in Libyan public companies, the First Company (AC) and the Second Company (BC). More particularly, it draws on the new institutional sociology (NIS) perspective of institutional theory (DiMaggio and Powell, 1983, 1991). The aim of this study is to investigate change in management accounting within the context of the Libyan transition by focusing on the main MACS including planning, controlling, costing, directing and decision making systems as well as change in two aforementioned Libyan manufacturing companies over the period of time stretching from 2003 to 2013. The study also focuses on both the nature of change in management accounting and the identification of the factors which cause such change in management accounting at the level of each company selected in the current thesis.

1.3 The Reason for the Choice of the Particular Organizations under Study

The AC and the BC were selected for this research for a number of reasons. They are significant public companies in the Libyan economy and the region because they meet around 90% of the local demand for trucks, buses and trailers. Both companies are the only organizations to produce or manufacture the kinds of products they do in Libya and thus have access to a large market. In addition, both the AC and the BC operate in a competitive context with a significant competition from the imported products by the Libyan private companies in the field of trading of trucks, buses and trailers. Moreover, the industrial sector, particularly the trucks, buses and trailers industries, is regarded as a new area for research. The importance of the trucks, buses and trailers led the researcher to select them as case studies in order to develop an understanding of the ways in which the MACS operate in these Libyan enterprises of significance and to provide an understanding of why and how these systems or practices have changed. A further key reason for selecting the AC and the BC is that the researcher is familiar with these public companies. Ease of access to the personnel of these companies and availability of assistance in collecting particular documents appropriate for the research were important factors determining this choice. Not only had the access to these companies, but also the empirical work for this research required the researcher to be in the field for a long time (approximately three months). Thus, in order to achieve the foregoing objectives, specific organizations in the trucks, buses; and trailers sectors have been selected as case studies for this research. The case study is preferred, as the researcher wants an in - depth understanding of the organizational phenomena within their context (Yin, 2003; see also Chapter 5).

1.4 Theoretical Framework, Research Methodology and Methods

The current study adopts a new institutional sociology perspective (NIS) of institutional theory as its underlying theoretical framework. Indeed, the NIS perspective has been chosen because it is very important in terms of providing a general picture and understanding about why and how the MACS, as practices, design and operate in the environment of Libyan state-owned manufacturing companies. Moreover, such a perspective is useful to identify the different institutional factors in forming the similarity and dissimilarity of these systems or practices (see DiMaggio and Powell, 1983, 1991). In doing this, managers, heads and accountants are asked to express their views regarding different issues of MACS changes obtained from the management accounting literature and NIS perspective of institutional theory (e.g., Hussain and Hoque, 2002; Moll *et al*, 2006; Yazdifar *et al*, 2008). Some of the identified limitations of the NIS are also addressed in this study by incorporating intra - organizational power relations and competition or market forces in the NIS framework (see Collier, 2001; Modell, 2002; Tsamenyi, *et al*, 2006; see also Chapter 4).

In order to achieve the objectives of this thesis, an appropriate research methodology is employed, in particular Laughlin's (1995) framework: "middle range thinking approach". Laughlin (1995, 2004) provided a useful framework for the positioning of accounting research as well as the selection of an appropriate methodology. He proposed three dimensions for classifying different schools of thought, namely: (1) theory, (2) methodology and (3) change. Theory refers to the level of prior theory. Methodology refers to the level of theory in methodology itself (Ryan *et al*, 2002). Change has a similar meaning to Burrell and Morgan's (1979) ideas, but is considered as a continuum rather than discrete choice.

Laughlin (1995) classified theories which have informed accounting research (see Section 5.2.4.1), but he did not situate institutional theory, actor network theory or practice theory within his own framework (Roslender, 2013). According to Roslender (2013), institutional theory is an example of middle range thinking as this was introduced into the accounting literature in Laughlin (1995, 2004). Roslender (2013, p. 13) also points out that

“[i]nstitutional theory scores relatively low in respect of methodology in much the same way as Laughlin (mis)conceives of symbolic interactionism, and as a result is confirmed as being best located in the bottom left box of the three-by-three matrix. At the limit some institutionalist thinking might just shade into the middle left hand box, alongside structuration theory and some Marxist and Critical Theory, although unlike them, with only a low level of change orientation”.

Based on the above, this study is primarily informed by a qualitative methodology (see Chapter 5). In addition, given the limited knowledge concerning the MACS change in Libyan public companies; it is believed that qualitative research is the most appropriate methodology to conduct this study. Methodology can be defined in many ways. For Taylor and Bogdan (1984, p. 1), “methodology is a way of thinking in order to achieve the objectives of this research”. It also principally involves the production of descriptive data in the form of “people’s own written or spoken words and observable behaviour” (Taylor and Bogdan, 1984, p. 5).

The justification for the choice of methodology of qualitative research is based on the researcher’s philosophical assumptions regarding ontology, epistemology, human nature and the nature of society (see Section 5.3.1 and Section 5.3.2) which inclines towards the use of ideographic methodology (Section 5.3.3). These assumptions have guided the researcher towards the description, exploration and understanding of the MACS practices based on the

perceived reality of managers, heads and accountants in both companies regarding the nature of change in the MACS as practices. Therefore, although the study seeks an understanding of change in management accounting in the Libyan context, it does not aim to derive generalisable and predictive conclusions regarding this practice. In the case of this study, the subjective and interpretative orientations emphasize qualitative research, i.e., the current study can be located within the interpretive stream of accounting research as it investigates the reasons for change in the MACS. For the purposes of this research, multiple methods of data collection from the Libyan case studies context were selected (semi -structured interviews, observation, and document analysis). The researcher adopted the case study approach (the interpretive approach) to achieve the objectives of this study as this approach offers a chance to conduct intensive observations of enterprises and can be argued to be the best method to understand phenomena in their natural contextual settings. Case studies have been widely advocated as a suitable research method for investigating organizational (including management accounting) practices in their broader and social context (Scapens, 1990).

1.5 Structure of the Thesis

This thesis consists of nine chapters (see Figure 1.1). The current chapter provides an introduction about the research topic and focus, research questions and objectives, research motivation, the reason for the choice of the particular organizations, theoretical framework, a brief discussion of research methodology and method and the structure of the thesis. Chapter Two provides an overview about the Libyan business environment, including the socio - cultural environment such as the geographical location, population, history and education as

well as political, legal and economic environment and the development plans, the budget of Libya and the accounting profession in order to explore the factors which affect the MACS.

Chapter Three reviews and outlines the general literature about management accounting systems and their context, highlighting the role of management accounting in organizations. Then, it goes on to present a brief historical overview of the development of management accounting. The chapter also presents a definition of change in management accounting. It also discusses the typology of such change in management accounting. Moreover, this chapter discusses internal and external factors which cause change in management accounting within organizations. It concludes by reviewing different theoretical perspectives which discuss management accounting in general and change in management accounting in particular, such as neo - classical economics, agency, structuration, contingency and institutional theories.

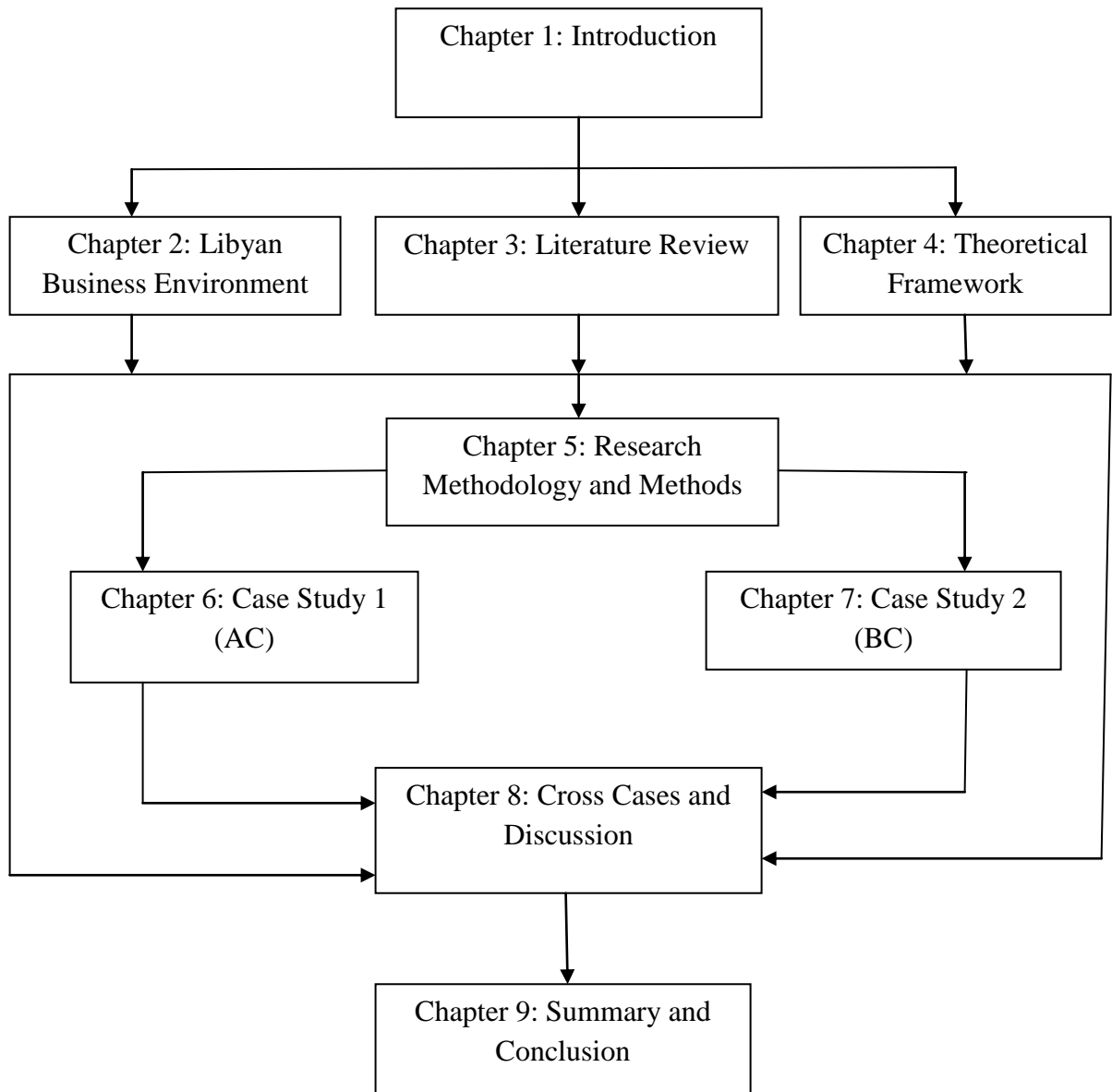
Chapter Four introduces the theoretical framework that is adopted to interpret the research findings. This thesis uses the NIS perspective of institutional theory to explore the types of institutional pressures which have shaped the current MACS in the Libyan state - owned manufacturing companies under study. The chapter also presents arguments for selecting institutional theory as the theoretical framework for the study. Based on the limitations of new institutional theory, the chapter proposes a framework which will incorporate market competition and intra - organizational power relations. Chapter Five discusses the research methodology details that are adopted in this study. The case study approach is adopted in this research, as well as a discussion of qualitative research methods used for data collection in this study. These methods were the use semi - structured interviews, direct and participant

observation and document analysis. This thesis uses an interpretive approach to provide the explanation of the MACS change from the perception of managers, heads and accountants in the case companies.

Chapters Six and Seven analyze and present the findings of two case studies of the industrial sector in Libya, the AC and the BC. The selected companies are working in the same industry, “the industry of transportation vehicles”, and they are located in the same region (the City of Tajoura). Both case companies have focused on the MACS that are being applied since their establishment. Analysis has also focused on the types of change that have occurred in these systems, the internal and external factors that may cause change in the MACS and resistance to change in the MACS.

In Chapter Eight, there is a comparison with the most important results that have been obtained through the case studies referred to in the preceding chapters. The chapter also discusses the findings of the study in line with the theoretical framework proposed in Chapter Four. It begins by identifying and discussing the potential isomorphic pressures within this environment that can influence the companies. Moreover, the chapter examines how the results reported in Chapters Six and Seven are explained by the institutional forces, market forces and intra - organizational power relations. Chapter Nine, the concluding chapter, discusses and summarizes the major findings of the thesis. Moreover, it highlights the main contributions to knowledge, defines the main limitations of the thesis and provides some suggestions for future research.

Figure (1.1): the Structure of the Thesis



Chapter Two: The Libyan Business Environment

2.1 Introduction

The understanding of management, in general, or management accounting and control systems in particular can no longer be possible without understanding the surrounding environment in which managers are functioning. The aim of this chapter is to discuss the key characteristics of the Libyan environment and the changes that have taken place in this environment since the country became independent in 1951. These characteristics are represented in the changes in the social, political, and economic environment of the Libyan society. Consequently, the researcher seeks to investigate the change in management accounting practices used in the Libyan state - owned manufacturing companies in relation to the change in the Libyan business environment. This chapter provides an overview regarding the Libyan context. Such information is essential to determine the factors that may play an influential role in the development of management accounting in Libya. This chapter is divided into the following main sections. Section 2.1 introduces the chapter. Section 2.2 reviews the socio-cultural environment. Section 2.3 outlines the political and legal system and the recent changes that have taken place in Libya. Section 2.4 discusses the Libyan economic environment. Section 2.5 highlights the accounting profession in Libya. Finally, Section 2.6 concludes the chapter.

2.2 The Socio-Cultural Environment in Libya

2.2.1 Geographical Location and Population

Libya is a developing Arab and Islamic state located in North Africa region. It has a total area of 1,759,540 square kilometers (1,092,882 square miles), the fourth largest country in Africa

and the seventeenth largest country in the world (UN, Demographic Yearbook, 2006). Libya comprises three main provinces; Tripolitania in the west; Cyrenaica in the east and Fezzan in the south, accounting for approximately 360,000, 855,000 and 550,000 square kilometers respectively. It also lies on the south coast of the Mediterranean Sea and whose coastline is stretched over nearly 1,800 kilometers from Tunisia in the west to Egypt in the east (African Development Bank, 1995). Apart from the Mediterranean Sea to the north, Libya is bounded by Egypt to the east, Sudan to the south east, Tunisia and Algeria to the west and Niger and Chad to the south. (See in Figure 2.1). However, about 90% of Libya's land is desert (Sahara) and therefore only about 10% of its land is utilized for agriculture and grazing (UN Demographic Yearbook, 2006).

Figure: (2.1) Map of Libya



Although Libya is a very large country, it has a very small population of almost 6.5 million, concentrated mostly in the two largest cities of Tripoli and Benghazi (Central Bank of Libya, Economic Bulletin, 2004; Oxford Business Group, 2008). The official language of Libya is Arabic, and about 98% of the population is Sunni Muslim. They are a mixture of Berber and Arab (Accountancy, April 2000).

2.2.2 Libyan History

Historically, Libya had been subjected to occupation by foreign powers and colonization for more than 3000 years (Fisher, 1985). During this period, it was occupied by several foreign military invasions from different countries including the Phoenicians, the Greeks, the Romans, Spain, the Ottoman Empire and, eventually, the Italians. In 24 December 1951, the United Nations declared Libya as an independent monarchy under King Mohammed Idris Al-Sanussi (Mahmud, 1997). Prior to 1951, Libya was occupied by the Phoenicians in Tripolitania (1000-201 BC). Thus, the name of Libya¹ has existed for more than 2000 years, going back to the time of the Phoenicians. Throughout the period (631-75 BC), the Greeks in Cyrenaica established the city of Cyrene, Barce (AL-Marj), Tocras, Ptolemais (Tolmeita) and Apollonia (the port for Cyrene). Cyrene also became one of the Greek world's premier intellectual and artistic centers, producing and exploring some of the finest scholars of the age. In 46 BC, the Romans occupied Libya and assigned Tripolitania to their ally, the Berber king of Numidia (Ham, 2002).

From 1510-1551 AD, Tripoli was also invaded again by the Spanish for 41 years. In 1551, Libya was occupied by the Ottoman Turks and it remained as a part of the Ottoman Empire for

¹ The name of Libya is derived from the Egyptian term "Libu" which refers to one of Berber tribes that lived in the west of Egypt (Clark et al, 1975).

around 360 years. The Ottoman administration was an extension of the Islamic Empire that embraced Libya from 1551 until 1835. On 3rd October 1911, Italy invaded Libya and the occupation lasted until 1943. To sustain its control over the country, the Italian military government in Libya made many improvements in the infrastructure. It also divided Libya into three provinces; Tripolitania, Cyrenaica, and Fezzan. Nevertheless, Italy was defeated in the Second World War and lost its administration in Libya. From 1943 to 1951, Libya was occupied by the British and French armies; Britain administrated over the northern part of Libya (Tripolitania and Cyrenaica), whereas the southern part (Fezzan) came under French administration. Thus, the British and French occupation lasted till the declaration of Libyan independence by the United Nations on December 24th, 1951 (Kezeiri and Lawless, 1987; Kilani, 1988; Business Group, 2008).

2.2.3 Education in Libya

Education is the means that any society utilizes for facing the challenges of the future. Thus, the advancement of a society depends not only on well-educated people in different aspects of life but also on research, innovation and invention (Alashehr, 1994). In addition, education influences cultures and societies through making people wiser, well-informed, and more knowledgeable. Accordingly, education has always been encouraged in Libya as a means of developing the society (Al-Shrif, 1999).

Most of the reports available regarding the development of education in Libya during the pre-independence period (1551-1711) would propose that the Ottomans had not placed any emphasis on universal education and the only means of education were religious schools and mosques. The main purpose of these Quranic schools was to graduate teachers of the Arabic

language and religious subjects such as Islamic Sharia to work in very remote regions. In addition, there were very few private schools in the main cities and these schools were not available to the majority of people due to the lack of transport (Addajani, 1971; El-Fathaly and Palmer, 1980). For instance, Habib (1975) stated that “on the whole, the Turks neglected education” (p. 279). He also mentioned that “the history of education is closely tied to the 400 years of colonial rule” (p. 279).

During the Karamanli period (1711-1835) Libya witnessed some developments in education. Europeans came in large numbers to settle in Libya, especially the French and the Italians, and the first non-religious school was established in Tripoli in 1804 (Deeb and Deeb, 1982). After that, the second Ottomans during the occupation period (1835-1911) made considerable efforts to encourage Islamic education in Libya. At that time, the first Islamic school or so-called Zawiya was established in Al-Bayda city in the east of Libya (Habib, 1975; Deeb and Deeb, 1982). Religious education persisted until the Italian occupation in 1911. In that period, Libya witnessed a new era in the development of education. The Libyans were exposed for the first time to modern education systems. The Italian Government spread schools all over the country. However, the main focus of the education system was on teaching the Italian Language and culture in order to eliminate the Libyan identity. After that, by the year 1915, all Quranic schools or so-called religious schools were subject to control by the Italian authorities (Hajjaji, 1967; Habib, 1975). However, despite all that, the Italian administration supported education by providing a few primary, secondary, and vocational schools. But, during the Second World War (1940 – 1943), all these schools were closed down (Deeb and Deeb, 1982).

In 1943, Libya was under the British administration. Unlike the Italians, the main focus was on non-religious education and the establishment of elementary, secondary, and vocational

schools. In addition, schools were opened in most of the major cities in Libya. In 1947, the first secondary schools were established in Tripoli. In 1949, a teachers' training institution was established in Tripoli to create and develop good teachers for elementary schools. However, the main focus was on the Egyptian curriculum for teaching in the Libyan schools (Hajjaji, 1967; Habib, 1975).

When Libya became independent in 1951, the Libyan Government under King Idris paid attention to improve the education system. The first step taken by the government was making education compulsory and free for all people without exception at all levels of education from the primary level to other stages and the construction of schools and the training of local teachers in order to enhance education in the country. In the same vein, education was given priority in government plans and enormous budgets were allocated for the education sector in the five-year development plan to boost education in the country (Habib, 1975). At that time, the majority of Libyans believed that modern education would be the only way out of the economic underdevelopment. Moreover, the discovery of oil in the early 1950s had caused radical changes in the economy to support educational planning. Consequently, schools were established in rural regions and many university colleges as well as vocational schools and training centers were established. Moreover, women became equal to men in terms of attending schools. In 1955, the first Libyan university to be established after independence was in the city of Benghazi and became known as the University of Libya. At that time, there were less than 20 university graduates in the whole country and as a result there was a severe shortage of qualified people to fill the main administrative and executive positions in the Libyan organizations (Habib, 1975).

After the 1969 revolution led by Al-Gaddafi, the new Libyan government decided to introduce some changes to the educational system to meet Libya's long-term strategies of its society (Deeb and Deeb, 1982). Accordingly, the Libyan society achieved significant progress towards modernization, helped by the strong commitment of the revolution to education. Since the revolution in 1969, education has become available for all people as schools and universities have been found everywhere in Libya (Deeb and Deeb, 1982). Consequently, there was an increase in the number of schools and students throughout the period from 1970 to 1975 (see Table, 2.1). Also, during much of the 42 – year reign of Al-Gaddafi, students had been taught the Green Book as a compulsory subject in Libyan schools and universities.

Table 2.1: The Number of Schools and Students 1970-75 (S: Schools, A: Students).

Type of School	1970-1971 S/A	1971-1972 S/A	1972-1973 S/A	1973-1974 S/A	1974-1975 S/A
Primary	1311/ 148371	1397/ 405435	1687/ 451928	1807/ 484986	1906/ 515811
Intermediate	185/ 37047	198/ 43346	230/ 54744	366/ 73928	420/ 90463
Secondary	30/ 8260	36/ 9426	44/ 10908	61/ 13471	68/ 14680
Technical	14/ 3088	15/ 3202	14/ 3375	12/ 3411	13/ 2883
Total	1556/ 40214	1666/ 467393	2052/ 531945	2323/ 531945	591402/ 2497

Source: Deeb and Deeb (1982, p. 36).

The Libyan Government also allocated just under LD 220.5 million² to the education sector in the two-year development plan of 1973-1975, as compared to just over LD 57.5 million in the seven years from 1963 to 1970 (Fergiani, 1983, p. 37). Fergiani (1983) mentioned that “education, according to the revolution, is one of the most important supports of real development towards a better community, and the only means for raising human capacities to the maximum ability of talents” (p. 35). Table 2.2 illustrates the increases in different levels of education including primary, preparatory and secondary school pupils for both male and female, as well as an increase in the number of teachers, educational levels and classrooms during the period 1968-1974.

Table 2.2: The Increases in the Number of Pupils, Teachers and Classrooms 1968-1974.

	1968-1969			1973-1974		
Description	Primary	Preparatory	Secondary	Primary	Preparatory	Secondary
Male pupils	183080	25637	6237	372612	62487	12202
Female pupils	87537	3544	944	107648	20009	2542
Teachers	9161	2076	608	19631	5128	1364
Schools	1069	144	25	1716	372	61
Classrooms	8311	818	250	16995	2570	521

Source: Fergiani (1983, p. 38).

² LD= Libyan Dinar, and LD= around US\$ 2.50.

The other fundamental changes that occurred during the reign of Gaddafi are: The University of Libya in Tripoli was renamed Al - Fatah University in 1976. It had approximately 24,000 students in 1986. In addition, the University of Libya in Benghazi was renamed the University of Garyounis in 1976. Student enrollment (including an agricultural campus at Al-Bayda) totaled around 1,000 students. The Bright Star University of Technology at Marsa al-Brega was founded in 1981. There were also two higher institutes of technology and one of mechanical and electrical engineering. The total enrollment at all higher - level institutions was 72,899 in 1992. Approximately 46% of post-secondary students are female, up from 25% in 1980 (Libya- Education, Encyclopedia of the Nations).

Moreover, one of the main academic subjects, which is currently being taught at the higher education level in Libyan universities is accounting. It is argued that the education system in Libya is influenced by and also affects the social, economic, political and cultural environments (Mahmud, 1997). Accounting as academic subject and profession in Libya has been affected by a number of factors such as the foreign influence brought about by the presence of foreign companies as well as the Libyan academics who graduated from Western universities such as British Universities (Kilani, 1988). In this respect, researchers indicated that the development of the accounting profession in Libya has been influenced by different factors that comprise the presence of foreign organizations and international accounting firms in Libya, particularly from the US and the UK, the introduction of an accounting education system drawn from American and British textbooks, accountants from other countries and Libyan accountants educated in foreign universities (Bait-El-Mal et al, 1973; Mahmud, 1997).

After the revolution in 17th February 2011, Libya has witnessed radical changes in the educational system. In 2012, the Ministry of Education under the New Transitional

Government has made great efforts for a successful start to the new school year. On 7th of January 2012, Libya's 1.2 million school children returned to classrooms in the whole country after being away. Furthermore, the country's old textbooks have been examined and revised not only to abolish the chapters glorifying Gaddafi but also to be substituted for new ones pertinent to the nine – month conflict that culminated in his downfall and death. The Education Minister Suleyman Ali A-Saheli stated that "Al-Gaddafi's political teachings, military teachings and the subject of Al-Jamahiriyah are being dropped from the new curriculum". Additionally, there were other fundamental changes in the names of higher institutions. For example, the University of Al – Fatah in Tripoli was renamed the University of Tripoli and the University of Garyounis in Benghazi was also renamed the University of Benghazi.

2.3 The Political and Legal Environments in Libya

2.3.1 The Political Regime in Libya and Recent Changes

After the country's independence on the 24th of December 1951, the three provinces of Libya were gathered under a federal monarchy of the United Kingdom of Libya. At that time, Mohammed Idris Al-Sanusi became king of Libya. However, more than eight years after the Second World War, Libya was still under the British and French administration (Bearman, 1986; Vandewalle, 2006). From 1951 till 1969, the political regime in Libya witnessed the development of a representative organization of the people in the form of a parliament which comprised an Upper House and a Lower House. The Upper House (the Senate) comprised 24 members, 8 members of whom were selected by the King, while the others were selected by the legislative councils of the three provinces; Tripolitania, Cyrenaica, and Fazen. The Lower House (the House of Representatives) represented all Libyan people (Farley, 1971). Elections

were also conducted to choose members of parliament in 1952 (Vandewalle, 2006). In April 1963, the Libyan Parliament introduced a legislation which was endorsed by the King to transform Libya from a federal to a unitary state, in which all government departments were put under the direct control of ministries of the central state; the official name of the country was also altered to the “Kingdom of Libya” (Farley, 1971; Kilani, 1988; Vandewalle, 1998; Vandewalle, 2006).

On 1st September 1969, a twenty – seven – year - old colonel Muammar Al-Gaddafi led a revolution against the King’s regime and overthrew the Sanusi monarchy by a military coup. Following the September military coup, the governing authority became the Revolution Command Council (RCC) under the leadership of Al - Gaddafi, which proclaimed the country as the “Libyan Arab Republic” instead of the hereditary monarchy. In 1973, the Libyan political system developed and the Libyan society witnessed a rebuilding of management and managerial techniques at the macro and micro - levels through the declaration of “the Cultural Revolution”. In this declaration, Al - Gaddafi encouraged the Libyans to participate in the political life by forming “the People’s Committees” to manage local administrations (Bearman, 1986; Kilani, 1988; Vandewalle, 2006).

In 1977, radical changes took place in the form of a new political order based on Al-Gaddafi’s philosophy of freedom and direct democracy. Al-Gaddafi’s view was that the (Libyan) people should govern themselves, a concept which later became known as “the People’s Authority”, which means that people are free to voice through their opinions without any political restrictions. In March 1977, the Libyan General People’s Congress (LGPC) adopted the Establishment Declaration of the People’s Authority. The declaration altered the name of the country from the “Libyan Arabic Republic” to the “Socialist People’s Libyan Arab

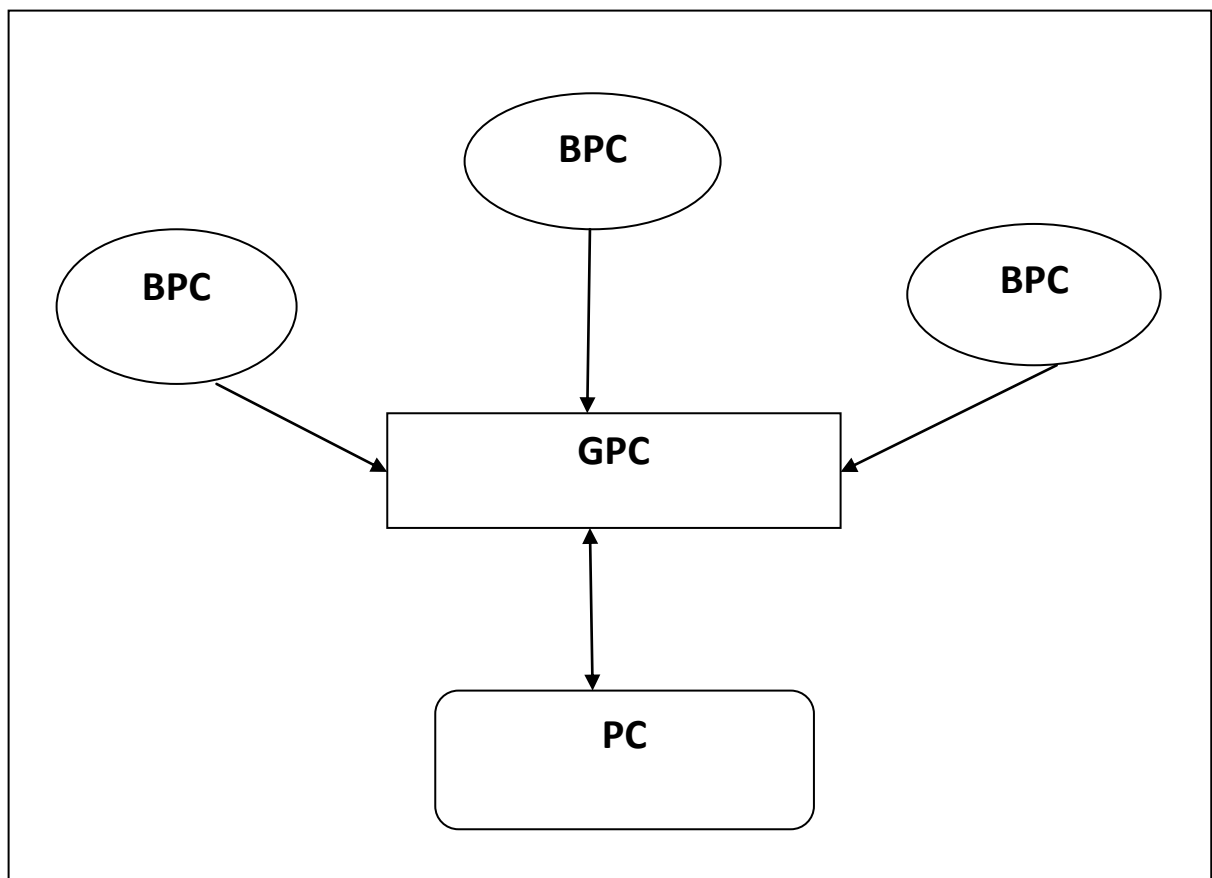
Jamahiriya” (Sicker, 1987). The Libyan society adopted Al-Gaddafi’s “Third Universal Theory”, better known as the “Green Book”, which consists of three parts, namely the Solution of the Problem of Democracy; the Solution of the Economic Problem; and the Social basis of the Third Universal Theory. It suggested an alternative view to communism and capitalism and it integrated Islamic values and Arab culture with social, economic, and political reforms. In this context, Al-Gaddafi wrote in the Green Book that:

“Parliament is a misrepresentation of the people, and parliamentary systems are a false solution to the problem of democracy. A parliament is originally founded to represent the people, but this in itself is undemocratic as democracy means the authority of the people and not authority acting on their behalf. The mere existence of a parliament means the absence of the people. True democracy exists only through the direct participation of the people and not through the activity of their representatives” (p. 4).

According to the People’s Authority system, the legislative and executive authorities are embodied in the General People’s Congress (GPC) and the People’s Committees (PCs). All people exercise their authority through the Basic People’s Congresses (BPCs). BPCs were founded in each region in Libya and everybody who is 18 years or older, regardless of gender, are required to participate in discussions of their affairs through direct consultation and consensus in their local BPCs. Each BPC has two bodies: a Secretariat of Congress (an administrative committee) and a People’s Committee (an executive committee) for implementing the decisions and recommendations of the BPC. All BPCs are members of the GPC, added to the professional associations and unions, which also have representatives in the GPC. The role of GPC was to delegate the executive authority to the General Secretariat of the GPC and the General People’s Committees, whose members are secretaries of Libyan ministries (the Libyan government). At the BPC level, Libyans discuss and consult each other

regarding the annual agenda of their local community and the country's general affairs. They also make their decisions and recommendations concerning this agenda. The outcomes from the various BPCs are then forwarded to the GPC in order to formulate and outline the implementation of a national strategy. The General People's Committee is responsible for implementing national policies (Bearman, 1986; Sicker, 1987; Morales, 1989; Al-Gaddafi, 1999). The structure of the Libyan political system is shown in Figure (2.2).

Figure 2.2: The Structure of the Libyan Political System



GPC: the General People's Congress; **PC;** Executive People's Committee; and **BPC;** Basic People's Congresses.

The following years witnessed deterioration in the political relationship between the Libyan government and the West, especially the United States of America (US). Different sanctions were imposed on Libya by the US and the United Nations (UN). In 1982, the US imposed an embargo on Libyan oil imports and the US exports to Libya. In 1984, the British government severed diplomatic relations with Libya after the killing of a policewoman in front of the Libyan Bureau in London. In December 1985, the US accused the Libyan government of involvement in the Palestinian attacks at Rome and Vienna airports. In addition, the US accused Libya of involvement in exploding a bomb in a Berlin nightclub frequented by US soldiers and on 15th April 1986, the US attacked Tripoli and Benghazi in retaliation (Vandewalle, 1998; Vandewalle, 2006).

In 1992, the UN imposed another embargo on Libya after the accusation of two Libyan citizens, Abdel Basset Al-Megrahi and Efhima of involvement in the crash of the American airline over Lockerbie in Scotland on 21st December 1988. Efhima was released because he was proved innocent and Al-Megrahi was guilty. The UN embargo was eased in 1999, when Libya accepted responsibility for Lockerbie and paid \$2.7 billion as compensation to the victims' families. The Lockerbie case caused both political and economic isolation of Libya for most of the 1990s. Since the start of the 2000s, relations with the West had been gradually normalized and the UN sanctions were completely lifted in 2003, whereas the US ended its embargo on Libya in 2004 (Vandewalle, 2006). However, the Libyan government had been attempting to mend its international reputation. These efforts were disrupted by the UN sanctions imposed on Libya following the accusation of the Libyan government of its involvement in the Lockerbie case. As a result of international efforts, the UN sanctions were suspended in 1999, which assisted Libya in improving its ties with all countries, especially the

US. Therefore, the relationship between Libya and the US had made notable progress. In addition, the Libyan government had concentrated on improving and developing the country's relationship with Africa and proposed to make the continent of Africa the "United States of Africa" or the so-called "African Union" which was established in 1999 (Vandewalle, 2006).

More recently, in 2009, the relationship between Libya and Western countries, especially the UK and the US witnessed some tension. The Scottish government issued a decision to release Al-Megrahi, who had been accused of planting the bomb that exploded the American Airplane (Pan Am Flight 103) over Lockerbie in 1988 (Crook, 2009). The Scottish authorities issued this decision for humanitarian reasons and the explanation was that he would die within three months (St John, 2010). Al-Megrahi returned to Libya, and then he passed away. All these policies and issues have largely affected the political and economic environments in Libya. The Libyan state controlled both the production and service sectors by nationalizing all the private organizations, although joint ventures took place between the country and some of the foreign companies in the oil sector and manufacturing companies.

In 2011, after 42 years of rule by Al-Gaddafi, new radical changes occurred in Libya. On 15th February 2011, hundreds of demonstrators protested in front of Benghazi's police headquarters after the arrest of human rights lawyer Fathi Terbil by the Libyan authorities. The lawyer was in charge of the cases of the families of victims of the Abu - Salim prison massacre. The families of victims demanded in a peaceful demonstration the release of the lawyer. However, the Libyan authorities used violence and fired live ammunition to disperse the protesters. As a result of these clashes, 38 people were injured, among them 10 of the security personnel in Benghazi. Also, many Libyans, especially in the east of the country pressed for the change of Al - Gaddafi's regime. This regime sent military forces with heavy weapons, such as tanks,

rocket launchers and aircrafts to stop these demonstrations in Benghazi. Thus, the number of demonstrators increased in different cities of Libya. They demanded freedom, democracy and the change of Al – Gaddafi’s regime. In Al - Bayda, Misratah, Derna and Zintan, hundreds of protesters in each town called for an end to the Gaddafi’s regime and set fire to police and security buildings. The Libyan security forces continued using lethal force to disperse demonstrators in those cities. A “Day of Rage” or as it became known as “the Libyan Uprising”, was planned by people in Libya and those counterparts in exile for February 17th. The national conference for the Libyan opposition asked that all groups that opposed the Gaddafi regime protest on 17th of February 2011. This choice of this date was in memory of the demonstration that took place in Benghazi more than five years earlier during which some civilians were killed by the Libyan security forces.

Following these events, the Security Council had had meetings in order to debate the situation in Libya. On 26th February 2011, the Security Council (SC) issued and adopted the resolution No 1970 at its 6491st meeting, acting under Chapter VII of the Charter of the United Nation and taking measures under its Article 41 (Security Council, 2011a). The SC demanded an immediate end to the violence in Libya, urged the government to address the “legitimate demands of the population” and referred the situation in Libya since 15th February, 2011 to the International Criminal Court. In addition, it imposed other sanctions that included travel bans, assets freezes and an arms embargo. On 27th February 2011, efforts were united to change the Gaddafi’s regime. The key objectives of the group did not comprise forming an interim government, but, instead to organize resistance efforts between the different cities and to offer a political face to the opposition to present to the world. The opposition in Benghazi had already called for a no-fly zone and airstrikes against Libya, specifically against Gaddafi’s

forces. Also, on 27th February, the Former Jamahiriya Justice Minister, Mustafa Abdul Jalil, was called to form a Temporary National Council or what became known later as the Libyan Transitional National Council (LNTC). This council was located in Benghazi under his chairmanship.

The Libyan authorities have not complied with resolution 1970 (Security Council, 2011a). They had continued their excessive use of violence and lethal force against civilians. The US President Barack Obama and US Secretary of State, Hillary Clinton stated that “Muammar Al-Gaddafi has lost his legitimacy to lead, and he must leave” (Yoo, 2011). In light of Obama’s speech, many world leaders and international organizations had espoused his viewpoint and taken it into consideration. On 18th March 2011, the forces of Gaddafi reached the outskirts of Benghazi equipped with heavy weapons in an attempt to attack the city of Benghazi on 19th March 2011. The situation in Libya became worse.

On 17th March 2011, the Security Council (SC) adopted resolution 1973 at its 6498th meeting. This resolution demanded an immediate ceasefire in Libya, stopping the attacks against civilians, a ban on all flights in the airspace of Libya, a no-fly-zone, freezing all assets, the protection of civilians, the enforcement of the arms embargo and tightened sanctions on the Gaddafi’s regime and its supporters. The UN Security Council had taken all necessary procedures to protect civilians in Libya from pro - Al-Gaddafi forces. In the period between 19th and 30th of March 2011, the USA, the UK, France, and other Western countries attacked Al-Gaddafi’s forces. On 31st March 2011, the administration of all military action over Libya was taken by NATO. The objective of this task includes three key elements: a no-fly-zone, an arms embargo and actions to protect civilians from attacks. On 20 October 2011, Muammar Al-Gaddafi was captured alive in his hometown of Sirte after his convoy was attacked by

NATO warplanes. He was then beaten and killed by the National Transitional Council forces in Sirte. After several clashes between Al-Gaddafi's forces and those related to the Libyan National Transitional Council (LNTC) which had continued for months, the battles in Libya ended. Three days later, Libyan National Transitional Council (LNTC) declared Libya officially liberated from Al-Gaddafi's regime on 23th October 2011.

On 22nd November 2011, the Libyan National Transitional Council (LNTC) appointed the interim government in Libya. Prime Minister of the interim government was Abdurrahim El-Keib, who was asked to form a new cabinet. The interim government consisted of 26 ministers and agents in each ministry, and each one of them is responsible for a certain sector. Furthermore, on 14th October 2012, the second interim government was established in Libya. Ali Zeidan was appointed on 14th October 2012 as Prime Minister of Libya by the General National Congress (GNC) and took office on 14th November after the Congress approved his cabinet nominees. Ali Zeidan is still the Prime Minister of Libya. The interim government that is led by Zeidan consists of 34 ministers, each one of whom is responsible for a certain sector.

2.3.2 The Libyan Legal System

Libya was ruled by the Ottoman Empire until 1911, when Italian forces obtained control and administration of Libya. Since that time, double judicial systems existed in Libya that distinguishes between religious and secular matters. For Muslims, the Islamic Law (Sharia Law) was utilized in the majority of cases that are of a personal nature, such as marriage and inheritance which fell under the jurisdiction of religious courts. However, the civil, criminal, and commercial laws were used in secular matters, were handled under a separate court system and were based on the French Code (Otman and Karlberg, 2007). Nevertheless, after the

September 1969 Revolution, the Libyan original constitution that had been in use since the independence of Libya in 1955 was cancelled by the Revolutionary Constitutional Declaration issued on 12 December 1969. In addition, the political leadership under Al - Gaddafi stated that the separation of the religious and secular laws is undesirable and conflicts with the Quran and Sharia law (El-Haj, 1989). Accordingly, all laws and regulations were reviewed and adjusted according to the Islamic Sharia Law to resolve this matter. The objective of the Legislative Review, formed in 1971, was to permeate Islamic Sharia Law to the existing laws in Libya. Therefore, in 1973, the religious and secular legal systems were combined together and the double court system was changed by a unitary court system.

During the 1970s, the independence and application of the law, the judicial independence and the due process of law were respected, except for political and anti-revolution affairs (Metz, 1987). However, in the late 1970s, the judicial system and power of law implementation lost its respect and independence through the interferences of political and resident coordinators in matters pertinent to the judicial system (Metz, 1987). Regarding the affairs of political and certain economic offences, the People's Court was specialized in these affairs. However, in 2005, this court was cancelled by an act of the General People's Congress (GPC) as part of a reform policy that started the enactment of a variety of laws in the late 1990s and has persisted in the past few years (Ali, 2010). The current judiciary system or the so-called "court system" in Libya consists of four tiers of courts: summary courts (partial courts), courts of first instance (primary courts), courts of appeal, and the supreme courts. Judges and presidents of these courts are appointed by the General People's Congress (GPC) (Otman and Karlberg, 2007).

Besides the four levels of the court system, Libya has a series of codes, which were reviewed and amended after 1969 to correspond with the various Islamic rules (Islamic Sharia Law). The

main codes are as follows: (1) the Civil Law was issued in 1953, modeled on the French Civil Law. It deals with sources of obligations, such as unlawful contracts as well as specific contracts such as insurance, exchange, sale, partnership and agency. (2) The Civil and Commercial Procedure Code was issued in 1953 and amended in 2010. It deals with the hierarchy of a variety of courts and their respective jurisdictions, procedural rules, enforcement of judgments and arbitration. (3) Libya's petroleum law No.25 of April 1955 (amended in 1961, 1965, 1983) has witnessed frequent changes coupled with the rapid increases in the Libyan government's income. These amendments have dealt with financial issues such as the change in the calculation of royalties and income taxes. In the year 2000, the Libyan government started work on drafting a new oil law. (4) The Bank Code was issued in 1958 and amended in 1963, 1993, and 2005, and deals with the financial matters in the country such as loans. All these laws include Islamic principles and customs and principles of natural law and rules of equity (Otman and Karlberg, 2007). However, Libya has embarked on a series of legal reforms as a result to the reform and the move towards a free market. Consequently, most of the laws are being reviewed or under amendment such as the petroleum law and some new laws that have been issued under the rule of Al - Gaddafi, such as the Commercial Code (2010), the Libyan Stock Market Law (2005), the Foreign Investment Law (2005) and the Bank Law (2005).

After 17th February 2011, Libya has witnessed radical changes pertinent to political, economic, social and legal matters. Therefore, the subsequent declarations of the Gaddafi regime would appear to have lost popular legitimacy, but they have not been replaced by a new constitutional resolution, as promised by the Libyan National Transitional Council (LNTC).

2.4 The Libyan Economic Environment

The Libyan economic environment can be divided into two phases. The first stage involves Libya's circumstances prior to oil discovery and after independence had been obtained. The second stage involves the period after oil had been discovered, which comprises the main issues, such as economic development plans, the impact of international sanctions, and the budget.

2.4.1 The Libyan Economy before the Discovery of Oil

Libya is Africa's major oil producer and one of Europe's biggest North African oil suppliers. Before the discovery of oil in 1959, agriculture was the main sector in Libya. Prior to the discovery of oil in Libya and the export of crude oil in 1961, Libya was one of the poorest and most backward countries in the world as a result of colonization and the wars that took place in the country. Higgins (1959) mentioned that the Libyan economy faced several political, economic, social and technological difficulties. It suffered from exceptional shortfalls, as had been under the Ottoman Empire, the Italian occupation and the British and French military administrations (Higgins, 1992). The Libyan economy was in a bad situation. There were shortfalls in all budgets, especially in the budget of trade. Furthermore, there were no sound production systems, a deficiency of capital and other resources for social and economic development and a lack of skilled and trained employees (Higgins, 1959).

The majority of economists who studied the Libyan economy before the discovery of oil in 1959 had doubts about the development potential of the country (El Hassia and El Megarbi, 1984). Libya had become reliant on aid from foreign states, and it was mainly the money provided by the US and UK in return for the use of military air bases as well as the assistance

from the UN and other organizations that aided Libya to survive and overcome the economic difficulties in the 1950s. Table (2.3) gives information in detail about the Libyan domestic and foreign revenues during the period (1954 - 1959) and the levels of government expenditure over these years.

During this period, people in Libya depended primarily upon agriculture, grazing, traditional industries and animal husbandry, whilst the industrial sector was limited due to a shortage of raw materials, power and capital investment. Numerous types of industries established before the discovery of oil were concentrated on processing local agricultural products, including flour, textiles, tobacco, footwear and clothing (Abbas, 1987).

Table (2.3): Government Revenue and Expenditure 1954/55-1958/59

(Millions in Libyan Dinars)

Year	1954/55	1955/56	1956/57	1957/58	1958/59
Expenditure	7.897	12.978	15.433	17.031	19.179
Domestic Revenue	5.549	7.061	8.147	9.595	12.049
Foreign Revenue	5.641	6.270	4.234	12.069	11.045
Total Revenue	11.190	13.331	12.381	21.664	23.094
Surplus or Deficit	3.293	0.353	-3.052	4.633	3.915

Source:- International Bank for Reconstruction and Development (1960, p. 347).

In 1959, commercial oil was discovered in the Zeltan field by a US petroleum company called Esso and production began in August 1961 (Wright, 1981; Vandewalle, 1998). The discovery

and export of oil was the beginning of a notable period of change in the Libyan economy. Since that time, annual personal income has increased, the standard of living has improved and the Libyan economy has witnessed radical changes from being a primitive economy dependent on agriculture into an economy based mainly on oil and its derivative products.

2.4.2 The Libyan Economy after the Discovery of Oil

After the discovery of oil, the Libyan economy grew rapidly as the country became richer, which attracted numerous foreign companies to work in diverse sectors, especially the oil sector. The Libyan economy has become reliant on international oil corporations such as the UK and the US companies (Bait-El-Mal et al, 1973), and other foreign companies functioning in different sectors such as banking services, where four of five bank branches belong to foreign banks (Buzied, 1998).

Depending on oil revenues, the Libyan government implemented different development plans in order to improve the national economy. One of the main objectives was to reduce the country's dependence on the oil sector and achieve a better degree of self - sufficiency and self - dependence. Therefore, emphasis was given over the last three decades to the industrial sector in non - oil sectors. Nonetheless, the oil sector was the major drive of the Libyan economy, with the contribution of oil to Gross Domestic Product (GDP) by over 50% in the 1970s and early 1980s. Consequently, there was an enormous interest in developing the non-oil industrial sectors, which increased considerably, contributing over 70% of GDP in the late 1980s and early 1990s (Ahmed and Gao, 2004). However, the country had faced some difficulties in being unable to produce sufficient capital goods and consumer goods to achieve self - sufficiency and self - reliance (Aagnaia, 1996). Table (2.4) reports Libyan GDP and per

capita income over the period 1967 - 2001. It also shows the dominance of the oil sector in the Libyan economy, accounting for between 22% and 63% of GDP over the period. The peak in 1980 reflects the sharp increase in oil prices during that year.

Table (2.4): The Libyan GDP and per Capita Income 1967 – 2001

Year	1967	1970	1975	1980	1985	1990	1997	2001
GDP (MLD)	747.8	1288.3	3674.3	10554	7852.1	7749.6	12976	17605
Oil Sector (MLD)	402.5	812.6	1961.1	6525.7	3500.4	2740.8	2977.5	6009
%	53.82%	63.08%	53.37%	61.83%	44.58%	35.37%	22.95%	34.13%
Other sectors (MLD)	345.3	475.7	1713.2	4028.1	4351.7	5008.8	9998	11596
%	46.18%	36.92%	46.63%	38.17%	55.42%	64.63%	77.05%	65.87%
Per Capita (LD)	430	656	1369	3252	2140	1600	2426	3171
Per Capita (\$)	1250	2216	4624	10985	7228	4320	6064	4186

MLD= Million Libyan Dinar, and **\$**= US Dollar.

Sources: (1) Ministry of Planning, Department National Accounts, National Accounts, Libya (various issues); and (2) Central Bank of Libya, Economic Bulletin and Annual Report (various issues).

During the period 1951 - 1969, i.e., from the independence to Al-Fatah Revolution, the Libyan economic system was capitalist. Private ownership existed with minimum governmental interference. Since the revolution in 1969, Libya has changed its underlying economic philosophy from capitalism to socialism. Consequently, the State has been controlling all manufacturing activities, as well as foreign and domestic retail trade and banking and insurance services. On 2nd March 1977, the Libyan General People's Congress (GPC) announced that it had to be administered by its citizens (Vandewalle, 1998). In addition, Colonel Muammar Al - Gaddafi declared that the formal name of Libya would become the "Socialist People's Libyan Arab Jamahiriya". In 1978, Al - Gaddafi had published the second volume of "the Green Book", which reflected his thoughts in relation to some crises that inflict societies such as socialism and social side (Bleuchot, 1982). This book has explained that the solution to the economic problem lies in the application of a new socialism theory.

According to the Green Book's philosophy, the socialist philosophy that Libya adopted since Al - Gaddafi's revolution affected largely the ownership of business and its objectives. The GPC declared the nationalization of all private property and, as a result, the private sector was completely abolished and prohibited from exercising any sort of businesses. In addition, the state ownership structure of businesses began in the early 1970s, and in the 1980s, both production and service sectors became owned by government institutions. The government has total authority over, for instance, imports or exports of a company and even the company's location. Thus, the objective of the socio - economic development of such companies is to

offer goods and services to the public rather than to make a profit (Ahmed and Gao, 2004). Consequently, most of the Libyan economy became controlled and centrally planned up to the mid 1990s (Wright, 1982). The implementation of socialism had been characterized by the orientation towards the liberalization of the national economy from the dominance of foreign companies. As a result, the exercise of economic activity in most cases has been performed by the public sector.

Furthermore, Libya has implemented the biggest water project in the world at a cost of \$ 45 billion, namely *The Great Man Made River* which irrigates millions of hectares of land to turn them into arable lands for producing food and providing job opportunities for Libyan citizens in the public sector. Also, this project would improve the income of Libyan citizens and the government will utilize it as another source of national income (Salama and Flanagan, 2005).

However, the Libyan economy has suffered from many difficulties and problems that limited the pace of its economic and human development. The domination of the state over economic activities has resulted in several problems such as lower productivity levels, lower quality, weak control in the state - owned sector and higher production costs (Al-Gaddafi, 2002). Moreover, the domination of the government over the public sector had many negative consequences, mainly the reliance on the public treasury as a financier of all economic activities. In addition, the public sector became the main user of the labour force in society (ibid). Furthermore, however, whilst the Libyan economy is characterized by its central control and authority policies, a number of private organizations have since 1990 emerged and started to operate. This change was a result of the crises that the Libyan economy faced in the late 1980s and early 1990s when the economic situation and standards of living worsened as world oil prices dropped as a result of the political and economic sanctions imposed by the US and

UN since the late 1980s which caused a serious decline in the Libyan economic activity (Ali, 2010).

After the US and UN lifted their sanctions in September 2003, the Libyan government has embarked on a series of social, economic and legal reforms. It has demonstrated its intention to move towards a free market. In view of that, a number of laws and resolutions were issued by the General People's Congress (GPC) in the past few years in order to enhance economic development and move the country from a centrally controlled economy to a liberalized economy by encouraging the private sector to emerge again and attracting foreign investments. Moreover, Libya has joined the World Trade Organization (WTO), and thus most of the laws are being reviewed in the context of the WTO requirements (Ali, 2010). It is true to say that some progress has been made in implementing the political and economic reforms, which are expected to improve Libya's government indicators. For instance, in 2009, Al-Gaddafi suggested to nationalize the hydrocarbon industry and to dismantle Libyan ministries. However, these suggestions were not followed and eventually rejected by the GPC.

In June 2003, in a speech to the Libyan General People's Congress (LGPC), Al - Gaddafi called for the wholesale privatization of Libya's basic oil and other industries. In the meantime, the Secretary of GPC for Trade and Economy³, Minister Shukri Ghanem, had been appointed as Secretary of GPC⁴ to initiate a new privatization policy in all sectors (Ellabbar, 2007). Accordingly, the privatization programme has been re-initiating its implementation. In accordance with the rules it set forth, the decision of adoption and making the subsequent

³ Trade and Economy Minister

⁴ Prime Minister

implementation in the framework of the provisions of the regulation on ownership issued by GPC No. 31 of 2003 and modified by resolution No. 52 of 2005 and the resolution No. 108 of 2007 (GPC, 2003, 2005, 2007). All these resolutions had been made and were intended mainly for the reconstruction in companies that can be effectively managed in the future. Generally, privatization in the Libyan economy is in its infancy. Therefore, experience has not been adequate to become a subject for assessment.

Alfajori (2004)⁵ describes the Libyan government's role at present and in the forthcoming stages as transferring the state - owned sector into the private sector, stimulating and encouraging the private sector and monitoring the macro economy. Alfajori (2004) pointed out that 361 state - owned companies were listed for privatization before 2008 in a three -stage plan (261 companies by the end of 2005, 46 by the end of 2007 and 54 by the end of 2008). Nevertheless, Binyon (2005) stated that only 48 state - owned companies were privatized in 2004 out of the 360 listed for privatization before 2008.

After the Libyan revolution in 2011, i.e., post - Gaddafi, Libya has been advised to diversify its economy, for example, the development of a tourism industry. This sector has not been exploited during Al – Gaddafi's reign. In the near future, Libya will not be short of new opportunities for economic development and securing foreign direct investment. Farhat Bengdara⁶ (Shahine and Salama, 2011) notes that:

“Libya's economic output can double from pre-conflict levels over the next ten years to become the “star of the region”. In order to achieve this, the Libyan

⁵ Alfajori had worked as Minister of Education and economic professional under Al-Gaddafi government, and is currently Libyan ambassador in Sudan under the New Transitional government (the interim government).

⁶Farhat Bengdara was the governor of the Central Bank of Libya (CBL).

National Transitional council (LNTC) must continue to commit itself to an ambitious but achievable roadmap leading to peaceful transition, free and fair elections, and the implementation of the principles of good governance. In doing so Libya indeed has the potential to rise as a phoenix from the ashes”.

2.4.3 Development Plans of Libya since Independence

Since its independence in 1951, Libya has prepared a number of development plans in order to build up the national economy by: (1) reducing the economic reliance on the oil industry in order to support agriculture and other industrial sectors; (2) achieving a greater degree of self-sufficiency in a variety of agricultural and industrial products; (3) establishing industries based on oil and natural gas and reducing foreign labour in order to encourage and stimulate national labour (Gzema, 1999).

Prior to 1963, Libya did not have a national economic development plan. However, during the period between 1952 and 1960, a series of ad hoc agencies were formulated to deal with the problems of economic development of the country. The activities of those agencies were financed by foreign aid mainly from the US and the UK (Farley, 1971; El Fathaly and Palmner, 1980). The total international assistance was estimated at approximately LD 74 million (Gzema, 1999). This amount of money was adequate in relation to the very low national income (Kilani, 1988). The main focus was on providing some priority services, such as healthcare and education as well as developing some fundamental economic activities such as agriculture and light industries. However, Libya had faced some problems to develop its economy due to certain obstacles, such as the deficiency of economic resources, the huge cost of communication over a very large land area, a lack of education and training (Farley, 1971),

a shortage of technical and managerial skills and the absence of large manufacturing companies (Kilani, 1988).

In 1963, the National Planning Council was established to implement the first five - year plan (1963-1968) for economic and social development. The discovery of oil influenced the great expenditure on this plan, LD 170 million, about \$ 500 million. For the first time, this plan was totally financed by Libyan resources and managed by Libyans. However, the plan was further extended for one year and the actual amount spent was about LD 551million, more than \$ 1.500 million, because oil revenues grew more rapidly than was initially expected (Farley, 1971). This plan was designed to: (1) improve the standards of people's living; (2) develop rural areas by establishing productive and public projects such as education, health, communication and housing; (3) give a special consideration to the agricultural sector and (4) reduce the reliance on foreign financial aid (Giurnaz, 1985; Abusneina, 1992; Saleh, 2001). The main results of the plan were apparent in the expanded infrastructure, road construction, schools and hospital construction and increased electric power.

Following the revolution of 1969, the structure of the Libyan economy changed. Numerous steps were taken by the Revolutionary Command Council under Colonel Al - Gaddafi to improve the macro - economic situation in Libya. The new government under Al - Gaddafi wanted to expand the objectives of its development plans and rejected the (1969 - 1974) plan which had been introduced by the previous regime (Idris Sanusi's Government). A three - year development plan (1973 - 1975) was the first plan prepared by the government under Al - Gaddafi's regime. The total allocation of the plan was designed to be LD 2585.900 million. Nevertheless, actual expenditures were bigger. For 1972, the government allocated \$ 1.017.6

million. This was more than twice the actual expenditures for 1971 and equal to 75% of the actual expenditures for the whole first five - year plan. The third plan allocated 22.1% out of the total allocation to the agricultural sector, 12.8% to industry, 7.2% to the oil sector, 10.2% to electricity, 8.6% to transportation, 9.2% to education, 14.1% to housing, 2.5% to public health, 0.8% to social affairs and social security and 0.3% to tourism (Saleh, 2001).

In 1975, the 1976 - 1980 socio - economic development plan was instituted. According to this plan, the highest share of investment was 17% in the agriculture sector, which was given the highest priority in terms of planning allocation. The sector was selected to receive a total of \$ 4.088.6 million of the plan's total planned expenditure. Industry came second with an allocation of \$ 3.475.2 million or about 15.2% in industry of proposed total investment (Saleh, 2001). The main objectives of this plan were to: (1) encourage the non - oil sectors and to raise the total production in all sectors and (2) make the country self-sufficient in food.

In 1981, the 1981 - 1985 economic and social transformation plan emerged. The main focus of this plan was on the manufacturing sector, which received 23.1% of the total investment that amounted to LD 16894 million. This plan reflected the new priority given to the heavy industry sector in the 1980s. Agriculture also received 18.2% of the total investment (Aagnaia, 1996). The key objectives of this plan were to: (i) improve and expand the existing industrial sites and establish new ones; (ii) increase the annual growth rate by 10.3% for the non - oil sectors and 17.2% for the entire economy; (iii) reduce the dependence on foreign countries in meeting basic needs by increasing the rate of agricultural growth and achieving an adequate supply of foodstuffs for Libyans; (iv) continue investment in the infrastructure and (5) build export - oriented manufacturing capacity (Aagnaia, 1996; Saleh, 2001).

No formal long - term plan existed between 1986 and 1993. However, a three - year economic plan covering the period 1994 - 1996 was initiated. This plan concentrated on industry and agriculture and the government's planned investment was LD 2.400 million but, due to a shortage of funds, actual expenditure was only LD 1.500 million (Saleh, 2001). This actual amount of expenditure was due to the relatively low oil prices in the mid - 1990s in conjunction with the impact of the UN sanctions imposed on the country in 1992 (Ministry of Planning, 1998). The actual amount spent on the agriculture sector was only about 31% of the proposed amount, whereas the actual amount spent on the manufacturing sector was approximately 140% (Saleh, 2001). This plan aimed to: (1) organize a new development plan; (2) complete either the present enterprises or the suspended projects in education, health, and energy sectors; and (3) put off all projects which had not yet been commenced (Ministry of Planning, Trade and Treasury, 1993). However, this plan encountered some problems and difficulties. Most fundamentally, insufficient amounts were put aside to achieve the expenditures required to achieve the aims. As a result, new debts were incurred. By 1996, government debt amounted to LD 2.210 million (Ministry of Planning, Economy and Trade 1997).

In 1999, a proposed socio - economic transformation plan (2002 - 2006) was designed. The total investment volume of this plan was LD 3.8 billion. The key objectives of this plan were to: (i) attempt to find new sources of funding for the Libyan economy, rather than oil resources; (ii) encourage local investment to take part in the development process; and (iii) open the door to the domestic sector and encourage it to participate in economic development activities. According to Metz (2003), the main characteristics of this proposed plan for the oil sector were: (1) to implement the discovery programme, thus increasing Libyan crude oil

production to 5000 million barrels at the end of the plan period; (2) to increase the production of natural gas by 106 billion, and the total Libyan revenue would, hence, increase by \$ 24745 million; (3) to increase crude oil production by 2925 million barrels and the total annual Libyan revenue would, therefore, increase by \$ 58499 million; and (4) to develop and increase refining products.

Finally, the development plan (2006 - 2010) aimed to achieve the key targets of the previous plans with more emphasis on the following aims:

1. Reducing dependence on the oil sector;
2. Increasing the private sector's participation in the national economy. This aim would be achieved by continuing the privatization policy of some public enterprises, encouraging the establishment of more joint stock firms and enhancing the competitiveness of domestic products;
3. Encouraging research and development activities to meet new international economic changes; and
4. Diversifying local income sources with a focus on education and health fees of non Libyan citizens, agriculture and industry sectors (The General PC of Planning, 2008).

Tulba and Fhaima (2004) argued that the Libyan economy had achieved high growth rates during the 1970s, suffered negative growth rates in the early 1980s and achieved slightly positive rates between 1985 and 2002. However, Saleh (2001) argued that most of the aims of the development plans have not been achieved due to the lack of skilled and semi - skilled labour force in the Libyan public sector.

2.4.4 The Impact of International Sanctions on the Libyan Economy

As mentioned earlier, sanctions had been imposed on Libya by the US and UN for more than 20 years. In fact, the US sanctions had been imposed on Libya since 1973. The US sanctions were again imposed on Libya in January 1986 due to the Libyan attacks against Rome and Vienna airports in December 1985. On August 5th 1996, the US also imposed additional sanctions on Libya as a part of the Iran - Libya sanctions programme. The Iran - Libya Sanctions Act provided for the imposition of sanctions on foreign enterprises that make an investment of more than \$ 20 million over a 12 - month period in Iran's energy sector. For Libya, the imposition of sanctions on foreign companies that make new investments of \$ 40 million or more in one year in Libya's oil and gas sectors. The burden of 30 years of economic sanctions had significantly restricted oil exports and stagnated the Libyan economy (Phillips, 2001). Furthermore, the US amended its sanctions on Libya on 28th April 1999, to allow shipments of donated clothing as well as food and medicine for humanitarian reasons. Nonetheless, on April 23rd 2004, most of the US sanctions against Libya were lifted as a response to the important steps taken by Libya to eliminate its chemical, biological and nuclear weapons programmes. The Bush administration lifted the US sanctions, removed a ban on commercial air services to Libya and released \$ 1.3 billion of frozen Libyan assets.

The UN sanctions started to hurt the Libyan economy on 15th April 1992, under Security Council Resolutions 748 on 31 March 1992 and 883 on 11 November 1993. The UN asked Libya to hand over two suspects wanted for the 1988 bombing of the US Pan - American flight 103 over Lockerbie, Scotland. The UN imposed sanctions which included bans on air travel,

arms sales embargo, trade in oil technology, and a freeze of Libya's foreign assets which imposed a high cost on Libya's economy (Phillips, 2001).

These sanctions cost Libya about US\$ 34 billion and caused substantial losses in the humanitarian, economic and social spheres. Moreover, all infrastructure development programmes and plans were negatively affected, thus, affecting Libyans' ability to achieve progress, development, well-being, stability, security and peace⁷. In April 1999, the Security Council suspended the sanctions against Libya. After that, the Libyan government under Al - Gaddafi handed over the suspects for trial in a special court. In the end, the court found one of the two suspects, Al - Megrahi, guilty. In August 2003, Libya agreed to pay \$ 2.7 billion as compensation for the crash victims. As a result, the UN sanctions have been completely lifted, and in light of Resolution No. 1506 of 2003, adopted on 12th September 2003, the Security Council formally lifted all sanctions.

As a result, the Libyan economy has suffered from these sanctions, particularly those imposed by the UN, which have also affected the health and other aspects of Libyan people's lives. In addition, the growth of the Libyan economy had deteriorated; foreign investment in Libya had been severely reduced, especially between 1992 and 1999; Libya experienced severe inflation over the sanctions period; and the ability to get new manufacturing technologies had been restricted (El-Nakhat, 2006). As described in the report presented to the Security Council president in 2000 by Dorda⁸, Libyan enterprises suffered substantial losses as a direct consequence of the UN sanctions. For example, Libyan firms functioning in the transportation

⁷ Extracts from the Report on the Impact of the UN Sanctions against Libya which were transmitted by the Libyan Mission to the UN Security Council in March 2000.

⁸ Abuzeid Dorda was the permanent representative of Libya in the United Nations under Al-Gaddafi regime.

sector have suffered total losses of about \$ 3.713 million, which had forced the closure of a large number of branches and a reduction in their manpower. The manufacturing sector had also made losses estimated at approximately \$ 5.851 million, whereas the losses of the trade and commercial sector have been estimated at approximately \$ 8.628 million. According to the latter report⁹, the main areas were the energy sector (\$ 6 billion), the commercial sector (\$ 5.8 billion), the transportation and communications sectors (\$ 2.5 billion), and the agricultural sector (\$ 337 million). Table (2.5) below shows the value of the losses caused by the sanctions from 1998 - 1999 (Dorda, 2000).

There have been different researchers' views concerning the impact of international sanctions in many sectors (Aгнаia, 1996; Alkizza, 2006; El-Nakhat, 2006). Agnaia (1996) argued that the economic embargo which had been imposed by the UN and US on Libya influenced the management and development policies in Libyan enterprises through reducing "opportunities for training abroad, importing modern facilities and inviting foreign experts for consultation, and participating in conferences regarding management training and development" (p. 47). Moreover, Alkizza (2006) and El - Nakhat (2006) stated that the international sanctions have affected all members of society in Libya.

⁹ Latter Report passed on 8th March 2000 to Chairman of Security Council by Abuzeid Dorda, who was the permanent representative of Libya in the United Nations.

Table (2.5): The Value of the Losses Caused by the Sanctions from 1998-1999

Effects	LD billion
Additional costs and medical providing damage	7.00
Additional costs for private abroad treatment	7.00
Additional costs for internal treatment	14.00
Damages in medical tools	9.00
Additional costs for internal ambulance	1.50
Additional costs for air ambulance	9.00
Damages in initial medical care	5.00
Other losses	2.00
Total	54.500

Source: Dorda, 2000.

2.4.5 The Budget of Libya

The Libyan budget is composed of two main parts: an administrative budget and a development budget. The administrative budget formulates the revenue and expenditure plans of ministries as well as any transfers to municipalities and public companies. The administrative budget is composed of two components; the first part includes wages and salaries while the second part includes the administrative expenditures. Primary proposals for the administrative budget originate at the municipal level, after which the proposals are forwarded to the appropriate ministry for merger and later submission to the Treasury Ministry which reviews and forwards the proposals to the General People's Congress (GPC) for final approval. The development budget comprises an annual project expenditure programme. This

programme is sometimes set within the framework of a three - year plan, for example, the development plan (1973 - 1975) or a five - year plan, for instance, the economic and social transformation plan (1981 - 1985). The development budget is initially prepared by companies seeking to do specific projects, with all proposals then being sent to the Treasury Ministry and the Ministry of Economy and Planning for revisions and submission to the GPC. Table (2.6) shows some indicators related to revenues and expenditures.

Table (2.6) also indicated that the last years of economic sanctions had created a budget deficit, especially in 1998. Despite the surplus in 1999, it was the year that the international sanctions were suspended. The reason for this surplus is the high rise in oil prices in that year. In addition, there was a deficit in the budget in the following year, 2000, due to continuation of economic sanctions on Libya. These sanctions caused a decline in oil production and increasing allocation of the administrative budget and development plan. After 2000, all subsequent budgets had achieved a surplus. For example, the 2008 budget experienced the highest surplus as it reached LD 32 billion. These positive results were due to the rise in oil prices coupled with the lift of international sanctions on Libya in 2003.

With respect to other sources of income, taxes, customs and services have been influenced. There had been a clear influence from the issuing of new laws. For instance, the Income Tax Law No. 64 of 1973 and the Stamp Tax Law No. 65 of 1973 were cancelled (Revolutionary Command Council, 1973a, 1973b). However, there had been new laws issued; for instance, the Income Tax Law No. 11 and the Stamp Tax Law No. 12 of 2004 were released (Libyan General People's Congress, 2004a, 2004b). The effects of these laws were positive. Later, the Income Tax Law No. 11 and the Stamp Tax Law No. 12 of 2004 were amended by the Income

Tax Law No. 8 and the Stamp Tax Law No. 7 of 2010 respectively (Libyan General People's Congress, 2010a; 2010b). In addition, some provisions of the Customs Law No. 67 of 1972 were modified and the Free Zones Law No. 9 of 2000 was issued (Revolutionary Command Council, 1972; Libyan General People's Congress, 2000). This law encouraged investment and reduced the tariffs of some imports. However, this modification had a negative impact on the government treasury. Other new versions of the customs law have been issued such as Custom Law No. 10 of 2010, to modify some items in the preceding laws (Libyan General People's Congress, 2010c). The impact of new law versions has not been clarified yet.

After the Libyan revolution in 2011, Libya's government budget provides for up to LD 68.5 billion in spending in 2012, thus, the government attempts to rebuild the destroyed buildings of the country as a result of the war in Libya in 2011 which ousted Muammar Al – Gaddafi's regime. In addition, Libya's National Transitional Council (LNTC) has approved the long awaited budget for 2012. The chairman of LNTC, Mustafa Abdel Jalil stated that *"the approval of the budget would indicate that the LNTC is quite supportive of the interim government of Mr. Abdulrrahim El-Keib¹⁰ and enable it to meet the demands and expectations of the people"* (Africa Research Bulletin: Libya: budget 2012). However, he also stated that Libya has a budget deficit of \$ 10 billion in 2012 as the government struggles to pay workers' salaries and meet energy costs (Reuters).

¹⁰ Prime Minister of Libya, Abdulrrahim El-Keib appointed in November 2011 until elections in June 2012.

Table (2.6): The Summary of Actual Revenues and Expenditures (Million LD)

		Non Oil Revenues					Expenditures				
Years	Oil Revenues	Customs	Taxes	Others	Total	Total Revenues	Administrative	Development	Extra Budget	Total	Surplus or - Deficit
1998	2551.0	519.0	535.0	761.0	1815.0	4366.0	3163.8	485.2	792.0	4441.0	-75.0
1999	3444.4	519.5	620.1	273.0	1412.6	4857.0	2966.9	794.1	535.0	4296.0	561.0
2000	2203.0	395.2	637.1	1426.9	2459.2	4662.2	3153.2	1541.0	556.0	5250.2	-588.0
2001	3603.0	362.5	706.8	1326.5	2395.8	5998.8	3596.6	1539.0	496.0	5631.6	367.2
2002	6551.0	364.0	715.1	944.0	2023.1	8574.1	4210.3	3701.7	575.0	8487.0	87.1
2003	3929.0	384.8	890.6	1709.2	2984.6	6913.6	3577.7	2530.0	758.5	6866.2	47.4
2004	19956.0	852.6	1037.6	1511.5	3401.7	23357.7	6720.0	6718.0	3792.0	17230.0	6127.7
2005	34378.0	548.0	1044.0	1247.0	2839.0	37217.0	8282.0	10273.0	2788.0	21343.0	15874.0
2006	43566.0	526.9	1259.7	1735.4	3522.0	47088.0	9054.0	11039.0	1285.0	21378.0	25710.0
2007	48638.3	528.0	1376.0	2824.0	4728.0	53366.3	11890.0	18993.0	0.0	30883.0	22483.3
2008	64417.0	499.2	2790.5	5034.5	8324.2	72741.2	11874.8	28903.3	0.0	40778.1	31963.1
2009	35347.0	1150.7	2836.2	4991.6	8978.5	44325.5	13757.4	17651.8	8915.3	40324.5	4001.0

Taken from; Zoubi (2011).

2.5 Accounting Profession

There are no records to show accurately how and when the accounting profession was first established in Libya. Since the early 1950s, it has been significantly influenced by the Libyan education system, the preferences of international companies, the expertise of international accounting companies and the rapid changes in the Libyan social, economic, political and legal environments (Bakar and Russell, 2003). Kilani (1988) argued that the Italian accounting profession and the Italian income Tax Law of 1923, which were applied in Libya during the Italian colonization period, influenced the evolution of accounting in Libya. The Italian accounting practices were utilized because Italian companies had largely employed Italian immigrants for administrative and accounting jobs as they were more qualified than the Libyans at that time (Bakar and Russell, 2003). Moreover, the Libyan people were excluded from administrative works in government and private firms during the Italian occupation.

After the Italian colonization, the Libyan manpower was not sufficiently trained to apply the Italian accounting practices. The neglect of the Italian administration, thus, led the Libyan accounting profession to follow and implement the US and UK accounting systems (Buzied, 1998). Accounting education in Libya was also influenced by the US and UK standards and practices through the use of their programmes and textbooks in Libyan Universities (Ahmed and Gao, 2004). According to Bakar (1997), the Libyan accounting profession was affected for decades by colonization and foreign companies prior to the move towards a centrally planned economy and the recent emergence of established private companies.

The accounting profession in Libya is quite young compared with the western accounting profession, which has existed for more than a century. The Libyan Accountants and Auditors

Association (LAAA) was established in 1973 and its objectives, rules and regulations were codified in the Accountants' Act 1973, which created the Board of Public Accountants to monitor the public accounting profession (Kilani, 88; Bakar and Russell, 2003). However, it had done nothing to build any professional theoretical basis of principles for accounting or auditing standards in Libya (Bakar, 1997; Buzied, 1998). Some argued that the LAAA had failed to regulate itself and to recognize its obligation towards the public interest. Also, it had not achieved the objectives of holding and participating in activities such as seminars, research, conference, continued education and training programmes or of supporting accounting publications to improve the status of the profession and its members (Bakar, 1997; Bakar and Russell, 2003; Ahmed and Gao, 2004). All these factors have contributed to the current very weak status of the Libyan accounting profession.

Accounting became a popular subject of study from 1957, when the Faculty of Economics and Commerce was established at the University of Libya (currently the University of Benghazi). Professional bodies and universities in the US and the UK were the key sources of influence, providing accountancy education and training for Libyan students (Bakar and Russell, 2003). Kilani (1988) argues that the preference of the US systems happened because of; (i) a huge number of Libyan students studied at American universities during 1970s; (ii) the US was an economic power and a leader in accounting practices and education; and (iii) because Libya had a good relationship with the US at that time. Therefore, two main forces affected the development of Libyan accounting. These were foreign companies and accounting education (Buzied, 1998; Ahmed and Gao, 2004). In addition, legal requirements also influenced the evolution of the Libyan accounting profession (Al-Badre, 2007). In this respect, Bakar and

Russell (2003) concluded that the accounting practices in Libya may be affected by the following factors:

1. Some changes in the Libyan social, economic and political environments.
2. The impact of accounting technology and the experience imported from other countries such as the UK and USA.
3. Legal requirements, for instance, government regulations and laws that regulated Libyan accounting practices.
4. The impact of accounting education and the coordination between university and practitioners in the accounting field.

2.6 Summary

The purpose of this chapter is to provide an overview of the political, economic and social aspects of the Libyan society within the Libyan industrial context, which is the macro context of this research. This chapter also relates to the accounting profession and the Libyan laws and regulations. With regard to the political factors, there has been no stability at all in Libya. For instance, during the last 360 years, the Libyan political landscape has witnessed many aspects and ruling systems, including the Ottoman Empire, the Italian occupation, the Second World War, the British and French administrations, the Kingdom of Libya, the Republic, the Libyan Arab Jamahiriya, and eventually a new government after Al – Gaddafi’s regime was toppled in 2011.

In relation to the economic factors, Libya - after the discovery of oil in 1959 - had changed from being one of the poorest countries in the world to a resource - rich country. Oil and

natural gas revenues have had a significant impact on the development and improvement in different Libyan sectors. The high oil revenues have enabled the government in Libya to provide its citizens with the basic things such as health care and education. The present chapter sheds light on these characteristics in the Libyan context in which this study is conducted in order to gain an in - depth understanding of management accounting change. These features may have played some role in changing the management accounting and control systems (MACS) in the Libyan state - owned manufacturing companies.

Having presented the context of Libya in this chapter, the next chapter will present the main literature driving this study.

Chapter Three: Literature Review

3.1 Introduction

This chapter reviews the research literature regarding change in management accounting. It is also to present a general idea of management accounting systems. Therefore, this chapter is organized as follows: Section 3.2 presents the role of management accounting. Section 3.3 provides a brief historical account of the development of management accounting. After that, the chapter sheds some light in Section 3.4 on the main arguments about the concept of change in management accounting. Then, it explains in Section 3.5 the different dimensions or a typology of change in management accounting. Moreover, Section 3.6 highlights the factors that caused change in management accounting. Also, this chapter reviews in Section 3.7 the different theoretical perspectives concerning management accounting in general and change in management accounting in particular, such as institutional theory, contingency theory and agency theory. In addition, the resistance to change in management accounting will be discussed in Section 3.8. Section 3.9 provides and reviews the previous studies related to management accounting in the Libyan context. Finally, Section 3.10 concludes the chapter.

3.2 The Role of Management Accounting

Management in any organization is the major user of the information that is supplied by so-called “management accounting”, therefore the term “management accounting” is a branch of accounting which is particularly for those who perform management in organizations (Weetman, 1999). According to Horngren *et al* (2002, p. 5), management accounting is “[t]he process of identifying, measuring, accumulating, analyzing, preparing, interpreting, and

communicating information that helps managers fulfill organizational objectives". The information that management accounting can provide organizations with is becoming increasingly important and required more than ever before as organizations and their environment become more competitive and complex.

"Management accountants are increasingly seen as business partners, focusing more and more on key strategic issues, well beyond the boundary of traditional finance" (Ernst & young and IMA, 2003, p. 1). The management accountant's role in numerous organizations has altered from being controller or scorekeeper to business support or internal business consultant. According to Kaplan and Atkinson (1998, p. xv), "[m]anagement accountants are no longer only scorekeepers of past performance". Instead, a management accountant has become the main member of management assisting them to achieve the firm's objectives. Furthermore, *"[m]anagement accounting systems play a vital role in helping the managers of complex, hierarchical organizations to plan and control their organizations"* (Kaplan and Atkinson, 1998, p. 10).

Kaplan and Atkinson (1998) stated that cost information is the most important kind of management accounting information. Organizations can utilize cost information to make significant resolutions about product features and product mix. In addition, it can be employed to develop competitive strategies, guide operation improvement activities, and assess their performance. Management accounting information is utilized to assist managers in performing their responsibilities of controlling, motivating, directing and planning (Garrison and Noreen, 2000). The majority of management accounting literature mentions that evaluating performance, planning, controlling, improving and developing competitive strategies and taking decisions are the key roles of management accounting to achieve targets for an

organization (see for example; Scapens, 1991; Weetman, 1999; Upchurch, 1998; Atkinson *et al*, 2001).

3.3 The Development of Management Accounting

Scapens (1991) states that management accounting started when owners started receiving accounting information associated to their businesses, which according to Al-khater (1999) can be traced to the sixteenth century. Although it was not called “management accounting” at that time, it was the start of this discipline. Scapens (1991, p. 9) mentioned that the present traditional wisdom of management accounting was established from studies carried out during the 1950s and 1960s and most of the methods were expanded during this period.

During the 1980s, researchers began to criticize management accounting practices (MAPs). Numerous criticisms concerning conventional management accounting practices were summarized by Drury (1996, p. 2), who argued that:

- traditional management accounting does not meet the requirements of today’s manufacturing and competitive environment,
- traditional product costing systems provide misleading information for decision-making purposes,
- management accounting concentrates almost entirely on internal activities and relatively little attention is given to the external environment in which an organization operates and that

- management accounting practices follow, and have become subservient to, financial accounting requirements.

According to Garrison and Noreen (2000, p. 9) “[m]anagerial accounting has its roots in the industrial revolution of the 19th century”. They pointed out that the majority of corporations existing at that period of time were managed and owned by people and there were no external shareholders. Thus, the need for financial reporting was poor, whereas the need for management accounting information was high and more developed techniques were utilized for this. In the 20th century, growing attention was paid to financial reporting and regulations to accomplish the requirements of several parties, for instance, creditors, regulation bodies, capital markets, professional bodies and other government parties. For numerous decades, management accounting existed to support and guarantee that financial accounting needs were accomplished and delivered on time to their users.

Kaplan and Atkinson (1998, pp. 2-3) also assert that “*the origins of modern management accounting can be traced to the emergence of managed, hierarchical enterprises in the early nineteenth century, such as armories and textile mills*”. In their view, the development and rapid increase of the railroads was one of the key purposes for the development of management accounting in the mid-nineteenth century. Additionally, during the same period, the emergence of complex metal-matching organizations created a new challenging environment for management accounting techniques. Furthermore, managers of organizations, for example, textile mills, railroads, steel mills and retail distributors were interested in measuring and evaluating the efficiency of internal operating processes and less concerned with / about measuring the costs of various products or the periodic profit of the company.

Kaplan and Atkinson (1998) also state that managers of DuPont Power Company in 1903 innovated new management accounting methods, the most important of which was the return-on-investment (ROI). The use of ROI was developed in the 1920s. During the period 1825 to 1925, there was an emergence of an increase in both large successful manufacturing companies and a host of management accounting techniques which conduces to the conclusion that these two phenomena were directly associated (e.g. Garrison and Noreen, 2000; Zimmerman, 2000). Furthermore, large companies such as DuPont, General Motors and United States Steel would not have survived without employing extensive management accounting techniques (Kaplan and Atkinson, 1998, p. 7).

Nevertheless, throughout the period 1925-1985, there was less and slower improvement in management accounting than in the period before. One reason was *“the demand for product cost information for financial accounting reports”* (Kaplan and Atkinson, 1998, p. 7). However, there was no particular cause behind the impact of improvement in financial accounting on development in management accounting techniques (see for example, Kaplan and Atkinson, 1998; Zimmerman; 2000). According to Zimmerman (2000, p. 15), since 1975, there have been two key factors that have influenced and altered organizations and management accounting: “(1) factory automation and computer / information technology and (2) global competition”. Kaplan and Atkinson (1998) argue that during the 1980s, new developed technologies appeared which created new challenges for management accounting since numerous corporations found that the conventional cost accounting methods being utilized were hindering the development of new manufacturing methods.

Nowadays, in contrast, new management accounting techniques are able to cope with the new environment of technology, competition, quality and improve industrialized processes and

productivity. Some of these techniques, for instance, are computer integrated manufacturing production systems, Total Quality Management (TQM), reengineering, Just-in-time (JIT) (see for example, Bromwich and Bhimani, 1994; Kaplan and Atkison, 1998; Zimmerman, 2000).

During and after the 1990s, change and practices regarding management accounting became popular research matters. Different surveys (see for example, Drury *et al*, 1993) in the UK have examined management accounting practices. Some of them cover a wide span of accounting activities, whereas the majority concentrates on studying the development of particular management accounting methods such as Activity - Based Costing (ABC).

3.4 The Concept of Management Accounting Change

The concept of accounting change is problematic (Pettigrew, 1995; Kanter et al, 1992). There is no generally agreed definition of management accounting change. Nevertheless, the meaning of change can be imputed from the studies undertaken. Dawson (1994, p. 10), defines change in an organization as “*any alteration in tasks or activities*”, but he also viewed change as a continuous process which can be progressive and regressive and has both intended and unintended consequences. Pettigrew (1995) points out that change has several aspects: a change involves the speed, quantity and quality of change. He argues that applying different theories of change will lead the researcher to concentrate on various aspects of change. Thus, Pettigrew (1995) concludes that the meaning of change depends on the definition utilized by the individual researcher in his / her theoretical framework. Consequently, he advocates that researchers define what they mean by change in their research design. Kanter *et al*, (1992) stated that the viewpoint of those who think they are creating change may be different from those who will be affected by these changes. He also argues that the intentional change might

be a decision made to formalize the type of activity that had existed in the background of the organization the whole time.

In the field of management accounting, much has been written in recent times on the subject of management accounting change (e.g. Libby and Waterhouse, 1996; Burns, Ezzamel and Scapens, 1999; Burns and Scapens, 2000; Burns and Vaivio, 2001; Williams and Seaman, 2001; Hassan, 2005; Sulaiman and Mitchell, 2005; Laitinen, 2006; Lukka, 2007; Akaber, 2010; Tomasz, 2010; Jansen, 2011). Burns and Scapens (2000, p. 3) contend that *“[m]anagement accounting change has become a topic of much debate in recent years. Whether management accounting has not changed, has changed, or should change, have all been discussed”*. Moreover, the environment in which management accounting is practiced surely appears to have changed, with advances in information technology, new management strategies, different organizational structures and highly competitive environments (e.g. Ezzamel *et al*, 1996). Although some researchers claimed that the basic nature of management accounting practices has not changed (e.g. Drury *et al*, 1993), there is evidence that the use of accounting systems or practices within organizations has changed (Bromwich and Bhimani, 1994).

Wickramasinghe and Alawattage (2007, p. 103) point out that management accounting change can be reflected in recent developments in three key areas: cost management, strategic management and management accounting in new organizations. Furthermore, they have introduced a definition of management accounting from different standpoints, such as technical - managerial, pragmatic - interpretive and critical - socio - economic, showing management accounting change as a change from a mechanistic approach (e.g. mechanization in technology, production - orientation in management, and conventional wisdom in management

accounting) to post - mechanistic approach (e.g. digitalization in technology, customer - orientation in management and new management accounting). According to them, the process of change reflects on the question of how management accounting techniques emerged, evolved and were transformed as a result of the changing competitive environment and the advanced manufacturing technology. According to Burns and Vaivio (2001), change can be considered as a centrally driven effort managed by the top management that recognizes the need for change as well as planning, organizing and controlling the change. On the contrary, lower managerial levels might be the main players in the process of change when the top management is not able to identify the particular circumstances that require change in accounting practices.

Management accounting change is not a uniform or homogeneous phenomenon (see, Hopwood, 1987; Sulaiman and Mitchell, 2005; Chanegrih, 2008). Accordingly, one might expect the causal factors of change to be varied and this has been confirmed by researchers in the field of management accounting. It is apparent that both the external environmental factors (macro - context factors) and internal factors (the micro- organizational factors) have influenced the recent development of new management accounting systems and techniques. According to Macy and Arunachalam (1995), management accounting change is defined as the ability of management accounting systems to adapt to changes in an organization's internal and external environment. In addition, change in environment means uncertainty and risk which generate a demand for further management accounting change in the shape of 'non - financial' measures (Vaivio, 1999).

The association between management accounting practices and the business environment has also been investigated in prior studies. For example, researchers such as Wijewardena and De

Zoysa (1999) argue that management accounting should respond to any change in the environment and accountants must make timely changes in their practices if accounting is to contribute more effectively to the success of organizations. Kaplan (1985) points out that management accounting systems will change or have to change whenever there is a change in the business environment within which organizations function and describes it as a cause - effect relationship. Also, to understand the process of management accounting change in the electronic sector, Innes and Mitchell (1990, p. 14) classified the causal factors to management accounting change into three major categories as follows:

- 1) Motivators: factors that affect change in a general way, including competitive market, organizational structure, production technology, product cost structure and short product life cycle;
- 2) Catalyst: factors that are related directly to the timing of change, including poor financial performance, loss of market share, organizational change, new accountants and launch of competing product; and
- 3) Facilitators: factors deemed significant for change but not adequate in themselves, including accounting staff resources, degree of autonomy, accounting requirements, authority of accountants and accounting computing resources.

There has also been an argument concerning whether management accounting has changed to respond to the change in the business environment, such as increased competition, production technology and information technology. For instance, Johnson and Kaplan (1987) argue that there has been no considerable change in management accounting systems since 1925, despite the great changes in numerous aspects of the business environment, for instance increased

competition, fast progress in production and process technology. Furthermore, many previous studies concluded that traditional management accounting systems are still extensively utilized and new systems, such as ABC, are not being utilized widely (Burns, Ezzamel and Scapens, 1999). In contrast, there is another standpoint opposing the claim of Johnson and Kaplan (1987). For instance, Scapens and Burns (2000) claim that there have been a number of innovations in management accounting since the published study of Johnson and Kaplan in 1987, such as the ABC and Balanced Scorecard (BSC) techniques.

3.5 Dimensions of Management Accounting Change

Change can be addressed in a variety of dimensions. This is evident from the main aspects of change which are reflected in the definition of the American Heritage Dictionary, 4th Edition, 2001. This definition comprises all of the following aspects: becoming different or undergoing alteration; transformation or transition; making an exchange; modifying; going from one stage to another; substitution; replacing with another system; giving and receiving reciprocally and abandoning. This definition shows different types of change and this diversity demonstrates that change is not a homogeneous phenomenon in general. It is not fixed in its nature and can be different in terms of importance and implications.

Accordingly, researchers in management accounting have focused on different types of change. For instance, Sulaiman and Mitchell (2005) and Chanegrih (2008) have focused on the typology of change in management accounting (the types of change), and on management accounting control systems in their studies. Their typology proposed five categories of change in technical management accounting, namely: (1) addition, (2) replacement, (3) output modification, (4) operational modification and (5) reduction. Furthermore, the main result of

Sulaiman and Mitchell (2005) demonstrates that the change in management accounting is not a uniform phenomenon. In addition, they found that the rate of change in management accounting in Malaysian companies was higher than that in the Canadian, French and Singaporean companies (Libby and Waterhouse, 1996; Sulaiman and Mitchell, 2005; Chanegrih, 2008). Their studies have agreed that the highest level of change in management accounting was in controlling, planning and costing sub-systems. Little attention has been given by researchers to the nature of change in management accounting systems or accounting practices. Furthermore, there is no clear - cut definition of change in management accounting (Granlund, 2001). This section will illustrate different types of change in management accounting. It also reviews how researchers conceived or addressed the issue of change in management accounting. Therefore, the researcher will review the various dimensions of change in detail as follows:

3.5.1 Introduction of New Techniques Where No Management Accounting Previously Existed (Addition)

This dimension involves the adoption of new techniques within the existing body of management accounting systems in an organization, for instance, the first use of a product costing system or the first implementation of the ABC, the BSC and performance reports. This implementation is often related to the early stages of organizational development in the organization.

Many researchers have viewed change in management accounting as a discrete event by adopting a new technique or system where none previously existed in the organization. Kaplan and Norton (1992) proposed the Balanced Scorecard technique to managers as the key measure

of financial and non - financial performance. They claimed that the purpose of non - financial performance measures is to supplement the traditional financial performance techniques such as earnings on investment. They also argued that the BSC delivers performance measurements to ensure the long - term survival of organizations. Another example, Ax and Bjornenak (2005) found out that 61% of Swedish enterprises are either currently using the Balanced Scorecard or were planning to use it within the next two years. Similarly, Malmi (2001) found out that 61% of Finnish companies had either adopted or were adopting the Balanced Scorecard technique. Other researchers, for instance, Vamosi (2000), adopted this dimension in a study of the introduction of new systems such as cost estimates for price calculation and cash flow management in privatized companies. In addition, this type of change can occur by means of the introduction of new managerial policies. For instance, Innes and Mitchell (1990) found this nature of change in their process of management accounting change study in the electronic sector in Scotland. It included the new management accounting supporting policies utilized by the firms for cost control, cost reduction, production location and product quality.

New management accounting techniques such as ABC and Target Costing (TC) have also been discussed in the literature. For example, Krishnan's study (2006) revealed that a large number of service firms are using the ABC technique to provide timely and quality information to help managers in their decision making process. Nevertheless, despite the popularity and importance of ABC within the literature and supportive technological advances, it has arguably not achieved a large scale of adoption. Abdul Majid and Sulaiman (2008) described the process of ABC in two Malaysian companies as well as Malaysian multinational companies. They recognized that ABC is a valuable method to improve the performance of these two companies, although it is not widely adopted by Malaysian companies. Similarly, Maelah and

Ibrahim (2007) found out that adoption of ABC in Malaysian manufacturing companies is at infancy stage, with 36% adoption rate. They argued that many Malaysian companies still use the traditional cost accounting systems in dealing with overhead costs. Moreover, this type of change can arise from the introduction of TC. In their survey, Yazdifar and Askarany (2012) indicated that TC is equally prevalent among manufacturing and service companies, whereas in terms of the levels of implementation there is a considerable difference between manufacturing and service companies.

3.5.2 Introduction of New Techniques as Replacements for Existing Ones (Replacement)

Replacement refers to the introduction of new methods to substitute the existing components of a management accounting system. For instance, where investment appraisal technique based on the payback period is replaced by the net present value method. Numerous researchers have studied change as the progressive replacement of the existing management accounting system (see Innes and Mitchell, 1990; Miller, 1992; Shank, 1996; Burns *et al*, 1999; Anderson and Young, 2001). For example, the replacement of a conventional costs system with an ABC or of a fixed budget system with flexible budgeting. Furthermore, the implementation of a fully new set of performance measures such as the BSC could be viewed in this manner where they replace traditional systems (Foster and Ward, 1994). In addition, this type of change is being researched, for instance, the switching from an incremental budgeting system to a planning, programming and budgeting System (Ezzamel, 1994). Moreover, the replacement of a traditional investment system and a net present value with a strategic cost management approach in assessing technology investment opportunities (Shank, 1996).

Other researchers mentioned this type of change, for example, Innes and Mitchell (1990) indicated that those traditional management accounting systems or techniques had shortcomings and inadequacies. Therefore, they can be replaced by those advanced management accounting techniques. Miller's study (1992) concluded that the traditional costing systems could not provide adequately and timely the information required in terms of meeting the needs of managers for their decision-making. Consequently, new management accounting systems must be designed and implemented (Miller, 1992).

3.5.3 Modification in the Management Accounting Information (Outputs Modification)

This dimension relates to situations where there are no new management accounting techniques involved. Rather, this aspect deals with the amendment of information outputs of the existing management accounting systems. For example, the preparation of weekly reports as opposed to monthly variance reports, or the change of presentation of information from the numerical information to graphical format (see Anderson and Young, 2001; Granlund, 2001; Sulaiman and Mitchell, 2005). As noted by Cobb *et al* (1995), new characteristics in the presentation could comprise main performance indicators and ratios such as the return on risk weighted capital. Vaivio (1999, p. 409) sheds some light on the need for this type of change as *"[i]t has been claimed that financial measurements should be complemented with new non - financial indicators and companies are being advised to erect multinational measurements systems"*. He also argued that an organization adopting a new strategy and concept such as total quality management could also need further measures. Therefore, these systems, in order to be new strategies in an organization, require additional financial and non - financial measurements through amending the existing performance reporting systems.

In the same vein, Amat *et al* (1994) proposed that a company requires ever more non - financial information for performance measurement and evaluation due to the adoption of new technologies and strategic changes. They also pointed out that most non - financial managers have a poor understanding of financial figures. Consequently, they need more non - financial information to support their decision - making (Amat *et al*, 1994). Moreover, the study of Burns *et al* (1999) supported the notion of change representing information output variation and concluded that significant management accounting change has taken place (Burns *et al*, 1999). Notwithstanding, this change is in the manner management accounting is used instead of change in the management accounting systems themselves.

3.5.4 Modification of the Technical Nature of a Management Accounting System or Technique (Operational Modification)

This dimension relates to the amendment of technical aspects of the existing management accounting systems or techniques of the organization. For instance, the modification of overhead absorption from labour hours to a machine time basis in an organization's costing system or the use of pre - determined overhead rate as opposed to the actual overhead rate (Sulaiman and Mitchell, 2005). According to Innes and Mitchell's (1990) study, the traditional overhead rates were modified to the direct charging of overhead to components or products. Likewise, as noted by Kaplan (1986), overhead allocations were amended from an aggregate basis (Lump Cost Basis) of collection and allocation to a process of collection and allocation on a disaggregated basis. In addition, an amendment happened in the allocation of costs to activities by altering from a simplistic basis using direct labour hours to a more normalized complex measure of output utilizing a more advanced technology.

Amendment of the existing management accounting system is fundamental in a dynamic business environment. Companies may have to change their organization structure as a means of enhancing the effectiveness of their budgetary control (Bruns and Waterhouse, 1975). In the same way, other researchers highlighted the modification of the technical nature of product costing system or practices. For example, an organization may need to improve or amend this system from marginal to total product costing system (Edwards and Newell, 1991; Granlund, 2001).

3.5.5 Removal of a Management Accounting System with no Replacement (Reduction)

This type of change involves the removal of a particular management accounting system, for example, the elimination of conventional budgeting with no replacement for this budgetary. Wallander (1999) provides an example of a Swedish bank, Svenska Handelsbanken that abandoned budgeting techniques. The bank abandoned its traditional budgeting process in 1979. Another example is that in a study conducted in the USA by Turney and Anderson (1989), part of the existing cost accounting systems that were designed and considered to gather data no longer existed. These systems were removed and no replacement was made for these systems of the organization. Sulaiman and Mitchell (2005) mentioned no occurrences of this type of change, nor did they think why this was so.

3.6 Factors Causing Management Accounting Change

In the preceding section, it was noted that there are various types of management accounting change and this diversity indicates that change is not a homogeneous event. The following is a literature review of recent studies demonstrating various factors found by researchers which have led to changes in management accounting systems and techniques of various

organizations. These factors are both of external and internal nature and have been important as drivers of change (Burns *et al*, 1999). It is argued that change in management accounting is understood better when studied within a context that takes into account the business environment inside and outside organizations (Sharma, 2000; Waweru *et al*, 2004).

Accordingly, the design of a management accounting system is influenced by a variety of environmental and organizational factors such as market competition, advances in technology, organizational structure, size, etc (Libby and Waterhouse, 1996; Burns and Vaivio, 2001; Haldma and Laats, 2002 and Waweru *et al*, 2004). In this respect, it is essential to discuss the relevant literature on the factors that might affect management accounting systems and practices. Therefore, these causal factors of change are divided into two major categories: the macro - context factors (external factors) and the micro - organizational aspects (internal factors). However, external forces may play a more dominant and certainly more frequent role, as drivers of change (Scapens *et al*, 2003). Many researchers also utilized these two categories in their research of management accounting systems and techniques (see for example, Amat *et al* 1994; Libby and Waterhouse, 1996; Burns *et al*, 1999 and Haldma and Laats, 2002; Wu and Drury, 2007 and Abdel-Kader and Luther, 2008). Besides these two main categories, there are other environmental factors such as social, political and economic contexts (Amat *et al*, 1994; Oakes and Miranti, 1996 and Sharma, 2000) which react as the overarching factors to the two major categories. Hopwood and Miller (1994) proposed that accounting research should move beyond the boundaries of organizations and be concerned with the concept of social, economic and political consequences. The following section will explain in more detail below the nature of the external and internal categories and their sub – groups.

3.6.1 Environmental Factors

Political, economic and social dimensions are classified as environmental factors (Sharma, 2000). The influences of the significant changes in these operating environments exert tremendous pressures on management accounting and control systems to change in organizations (Granlund, 2001; Haldma and Laats, 2002). For example, economic crises have driven accounting change (Hopwood, 1987). In addition, social and political crises have contributed to the significance of management accounting and standard costing (Oakes and Miranti, 1996). Furthermore, management accounting is characterized by continuity and change despite the enormous institutional changes in environment (Vamosi, 2000). Other researchers characterized it as stability and change (Siti - Nabiha and Scapens, 2005).

Numerous researchers have combined the three environmental factors above into one heading in their respective studies on management accounting systems, in particular standard costing because of the inter - relationship of these factors (Amat *et al*, 1994; Oakes and Miranti, 1996; Sharma, 2000). These factors create the major aspects of the organizational environment which may be unstable (Klammer and Walker, 1984). According to Oakes and Miranti (1996), the social and political crisis of the progressive period contributed to the prominence of scientific management and standard costing. The techniques of scientific management seem to appear due to the problems which they solved. Sharma (2000) also examines the impact of the social, political and economic environment on management accounting and control systems in a public sector firm in Fiji. The study reported that there is an association between management accounting and the business environment within and outside organizations. Additionally, both external forces and internal desire are needed to successfully improve the commitment to quality and performance measures. In another study, the social and political turbulence

contributes to the development of new management accounting systems (Laitinen, 2003). In the same way, changes in management control strategies are related to the economic crises and this correlation is supported by the study undertaken by Armstrong (1985).

Furthermore, previous studies in management accounting have concluded that the success of a management control system impinges upon the wider historical, social, economic, political and cultural factors that are external to an organization (Hopwood, 1987; Scapens and Roberts, 1993; Hoque and Hopper, 1994, 1997; Anderson and Lanen, 1999; Broadbent, 1999). This diversity of influences shapes an accounting system in an organization (Scapens and Roberts, 1993). Other researchers argued that all reproduction of social practice is historical and contingent. The social, political and economic factors are seen as being able to provide bases for accounting change (Innes and Mitchell, 1990; Broadbent, 1999). In another study, for example, Anderson and Lanen (1999) investigated the relationship between economic and political disturbances in India (liberalization of the economy in 1991) and the change in management accounting practices in manufacturing companies. They concluded that the study findings are consistent with the contingency theory perspective and that the change in the external environment prompted a change in management accounting practices.

3.6.2 Macro - Context Factors (External Factors)

The macro - context factors are external factors that exist outside organizations. According to Macy and Arunachalam (1995), the external environment is defined as the phenomena that are external and have either potential or actual influence on the organization. Fisher (1995) shows that the external business environments in which firms operate could be unchanging or dynamic, certain or uncertain, simple or complex, turbulent or stable. It is argued that the

research on the external environment mainly represents the level of uncertainty (Fisher, 1995; Macy and Arunachalam, 1995). Consequently, more sophisticated management accounting information is required when organizations operate in a more uncertain business environment (Mia and Clarke, 1999; Mia and Patiar, 2001). Therefore, increasing competition, the consumer and the market situation are all relevant external factors driving management accounting change. The following sub - sections will explain in more detail below each of these factors.

3.6.2.1 Competition

Competition has been considered as the main factor in the design and implementation of the new management accounting system (see Amat *et al*, 1994; Fadaly, 2008). Hoque *et al* (2001) suggested that greater emphasis on several measures for performance assessment is associated with companies facing high competition and making greater use of computer - aided manufacturing operations. Different kinds of competition (e.g. prices, marketing, etc) have different influences on management accounting control systems in manufacturing companies. It is argued that the level of sophistication of the accounting and control system is influenced by the intensity of competition (Otley, 1980) and managers may need further information to cope with the rapid increase of market competition (Chong *et al*, 2005). Johnson and Kaplan (1987) stated that traditional cost accounting systems are unlikely to provide valuable and helpful information for manufacturing operations. Accordingly, change was needed in proportion to the increase in competitive pressure (Kaplan, 1986; Johnson and Kaplan, 1987).

Furthermore, market competition creates confusion, pressure, risk and uncertainty for organizations. Therefore, they should amend or improve their management accounting systems

constantly to reflect the threats and opportunities in the competitive environment (Mia and Clarke, 1999; Laitinen, 2001). Moreover, the competition factor covers aspects such as the globalization aspect and the lowest technology aspect (Cobb *et al*, 1995; Shields, 1997). Therefore, the changes in these aspects lead to alterations in the management accounting systems, especially the management accounting reports of an organization. Likewise, Miller (1992) argued that with the rapid increase in competition, today's cost accounting systems are insufficient to provide organizations with the financial information needed by management. Better management information is needed due to increasing international competitive pressures (Burns and Scapens, 2000).

There have been some studies that investigated the relationship between environmental factors and management accounting systems (Khandwalla, 1972; Otley, 1978). For example, Otley (1978) examined the impact of difference on the environment shaped by unit managers. Khandwalla (1972) examined empirical relationships between different types of competition and a number of sophisticated management accounting control systems that are relevant to manufacturing companies. Khandwalla (1972) and Otley (1978) concluded that the sophistication of management accounting systems has been influenced by environmental factors in general and the competition factors in particular. Other researchers, for example, Kaplan (1983) included other aspects when explaining competition. These aspects comprise quality and cost minimization and productivity which require the introduction of a new accounting control system into an organization. Kaplan (1983) also pointed out that competitive pressure covers quality, performance and price. Another example is that Khandwalla (1972) stated that competition comprises of: the technical personnel, selling and distribution quality, competition for raw material and a diversity of products and price.

In addition, there is empirical evidence indicating the desire for appropriate management accounting practices or systems in business organizations to meet increasing competition (see Hussain and Hoque, 2002; O'Connor *et al*, 2004 and Hoque, 2005). For instance, Hussain and Hoque (2002) found out that competition is one of the factors which affects performance measurement systems. Similarly, O'Connor *et al* (2004) concluded that the change in management accounting control systems occurred as a result of increased competition and institutional factors such as stock market listing and joint venture experience. In addition, Hoque (2005) concluded that competition is one of the important reasons why companies use specific practices such as non - financial performance measures.

3.6.2.2 Market

The market circumstances are one of the main elements in which an organization operates. Market nature affects an organization's behavior and its economic success depends upon exploiting the market. Therefore, market nature and conditions are themselves subjects for information provision (i.e.: strategic management accounting) and contribute also to uncertainty which produces information demand within organizations.

From the above standpoint, the market is defined by the dependence and relationship of a firm with the others (Bruns and Waterhouse, 1975). Nevertheless, market and competition - to some extent - are exchangeable. Therefore, many researchers have combined both external factors in their studies. For instance, Innes and Mitchell (1990) included the competitive and dynamic market environment that requires costing systems which involve: simplification of cost accounting systems and performance measurement. In the same way, Turney and Anderson (1989) included marketing excellence through improved quality, delivery, flexibility and

designs as the competitive benefits in the market. This demands an organization's management accounting systems to be proactive in the search for continuous improvement. Other aspects of the market include price calculation and cash management (Vamosi, 2000) and better management information (Burns and Scapens, 2000). Moreover, Burns *et al* (1999) argued that management accounting processes have been slow to change notwithstanding the increase in the market and competition.

3.6.2.3 Consumers

The consumer is also one of the basic environmental factors which can boost the organizational change of companies. Consumers have several choices and they are exercising their right to choose who they buy from. They have become more demanding as a result of their new power to choose. Hence, devoting attention to customers' demands is a key issue that could lead to the introduction of non - financial performance measures which should positively reflect the relationships between customers and a company. For instance, Total Quality introduction requires non - financial measures to be part of the management report. Numerous non - financial measures are introduced with the intention of minimizing customer dissatisfaction (Vaivio, 1999). In the same vein, Foster *et al*'s study (1996) demonstrates that there is an increasing acknowledgment that the Customer Account Profitability (CAP) represents an important future direction of management accounting. The main concentration of Customer Account Profitability (CAP) is to attract and maintain profitable customers. Given the significance of customer bases, management accountants should follow the change of customers' performance from time to time.

The impact of the customer on internal accounting has been viewed in many ways. For instance, the introduction of numerous new products and innovative practices such as derivative products, financial future options, currency swaps market by banks to customers have created a massive pressure for change throughout the banking community. Numerous management accounting changes comprise new characteristics of reports with performance indicators, identifying cost drivers to avoid arbitrary allocation, Value - For - Money (VFM) exercise and ABC implementation (Cobb *et al*, 1995). In addition, given the importance of customers as an external factor, Anderson and Lanen (1999) mentioned that due to increased competition, firms have become more customer - oriented, whereby the customer ranks first in the planning and control process and performance evaluation. In addition, powerful customers are mentioned in Abdel - Kader and Lather's study (2008). They examined the impact of powerful customers and other external factors such as size, organizational strategy, a decentralized structure; etc on management accounting practices in UK production companies and the contingency theory perspective that was used in their study.

Figure 3.1 shows the three sub - groups of macro - context factors (external factors) listed above and the related factors that fall under each respective heading.

Figure 3-1

Macro - Context Factors (External Factors)		
Competition	Market	Consumers
Quality improvement	Market excellence (quality, delivery, flexibility and designs)	Product innovation
Cost minimization		Customer demands
International competition	Dynamic market environment	
Lower cost technology	Market globalization	Dissatisfied customers
Waste reduction	Market pressures	

3.6.3 Micro-organizational Factors (Internal Factors)

The micro - organizational factors are internal factors that exist inside an organization. They may also be drivers of management accounting changes, for instance, changes in organizational structures and new management styles (Scapens *et al*, 2003). Amat *et al* (1994) emphasize that the intra and extra organizational factors have been used to analyze the implementation and change of management accounting systems. The internal factors within companies include organizational structure, managerial policies, production technology, employees, problems of existing techniques, and deterioration of financial performance. The following sub - sections will discuss these factors in more detail.

3.6.3.1 Organizational Structure

Numerous researchers highlighted the fact that organizational structure has an effect on the ability of an organization to successfully change its practices and to implement innovation systems (Otley, 1980; Innes and Mitchell, 1990; Cobb *et al*, 1995; Gosselin, 1997; Scapens, 2000). According to Otley (1980), there is evidence to propose that the structure of an organization influences the system in which budgetary information is used. Otley (1980) concluded that the organizational structure and technology have a significant effect on the manner in which an accounting system works. He also mentioned that the accounting systems rely on particular circumstances which surround the organization. Otley (1980) mentioned that the contingency approach identifies one of the specific situations such as organizational structure and its contributions to management accounting change in numerous ways. According to Scapens (2000), there has been a considerable change in the organizational

structure of UK organizations, which had a significant impact on management accounting systems.

Cobb *et al* (1995) argued that a change in organizational structure has an indirect effect on accounting practices because a change in organization structure is followed by a change in the priorities of an organization, which may in turn affect management accounting practices. Innes and Mitchell (1990) have chosen the organizational structure as one of the specific aspects in their studies for the process of change in management accounting systems. They found out that the level of decentralization structure is a key factor in facilitating accounting change (Innes and Mitchell, 1990). According to Hoque (2005), the top management of a company can make some modifications in their organizational structure to become more effective and efficient in order to obtain a bigger market share and survival.

There are other several studies that focused on different dimensions of management accounting and their relation with organizational structure (Bruns and Waterhouse, 1975; Libby and Waterhouse, 1996; Williams and Seaman, 2001; Haldma and Laats, 2002; Abdel-Kader and Luther, 2008). For instance, Bruns and Waterhouse (1975) explored the interaction and relationship of organizational structure and budgets. Their study concluded that the association between organization context, organizational structure and budget - related behavior are consistent with the notion that organization strategies may be divided into two categories, decentralized but structured and centralized. As a result, change in organizational structure might be a vehicle of change in the organizational budgetary control system. Conversely, this result is inconsistent with the Libby and Waterhouse (1996) analysis which demonstrates no considerable relationship between the number of management accounting control systems (MACS) and decentralization in 24 Canadian organizations.

Haldma and Laats (2002) also examined the main impacts of internal organizational aspects on management accounting practices in Estonian manufacturing companies by using a contingency theory framework. They found some evidence that changes in cost and management accounting practices were associated with shifts in organizational aspects such as organizational structure. Similarly, Abdel - Kader and Luther (2008) concluded that the organizational structure is one of the most important factors which affect management accounting practices. Anderson (1995) argued that there is a need for an organization to adopt new management accounting systems to support companies' growth and amend the organizational structure.

3.6.3.2 Managerial Policies

The above section has illustrated the change in management accounting as a result of organizational extension and change in the structure. Nevertheless, this is incomplete without relating it to organizational activities. According to Edwards and Newell (1991), cost accounting systems have been designed and utilized since 1850 by organizations following policies of financial improvement on their diverse processes and activities. Companies need relevant information regarding planning, managing, controlling and directing the activities of the business in order to apply managerial policies to improve operations and products and change in strategies (Miller, 1992).

3.6.3.3 Production Technology

Technology as a contingent factor can be related to production or information. Macy and Arunachalam (1995) defined 'production technology' as the process of transforming inputs to

outputs. It is perhaps the simplest and longest established contingent variable utilized in management accounting and the distinction between different kinds of production techniques is a factor that has long been recognized as affecting the design of internal accounting systems. Fisher (1995) argues that technology as a contingent factor can be related to production or information.

According to Scapens *et al* (2003), the speed of technological change of production obviously had a significant impact on routine organizational life. Burns and Baldvinsdottir (2007) also assert that the increased speed of technological change has affected management accounting systems. Nanni *et al* (1992, p. 4) stated that

“[m]anufacturers must have the response capability to take advantage of technological changes through process and product innovation. The environment in which management accounting operates has changed significantly in the last twenty years and obviously this change has been in the technology and the complexity of manufacturing operation”.

Otley (1980) pointed out that production technology has a significant effect on the kind of accounting information system. For example, the nature of the production process determines the amount of cost allocation instead of cost apportionment. Put succinctly, complex technology needs simple and informal control mechanisms and uniform technology requires complex mechanisms (Wichramasinghe and Alawattage, 2007).

The adoption of new and high technological manufacturing techniques which transform production from normal into mechanized can have effects on management accounting. For example, the products produced in a high technological organization are fundamentally more complex and have a short life cycle (Brimson, 1986). Conventionally, the product life cycle

comprises four stages: start - up; growth; maturity; and decline that spend most of their lives in the last two stages. A shorter product life - cycle and the desire to remain competitive require high technological organizations to invest in new manufacturing technologies such as: advanced manufacturing technology; flexible manufacturing systems; computer integrated manufacturing; etc. Therefore, new capital investment analysis is needed. Shank (1996) proposes that the traditional systems of capital investment analysis should be replaced by strategic cost management as this approach takes into account fundamental strategic matters.

Furthermore, Isa and Thye (2006) argue that management accounting techniques such as activity - based costing (ABC), value added accounting and target costing (TC) are influenced by technological factors such as complexity of production process, overhead expenses and product variety. However, other researchers argued that technological factors such as the level of overhead, product complexity and diversity and relative advantage are not related to management accounting practices such as ABC (Reid and Smith, 2000; Brown *et al*, 2004).

In addition, the study by Innes and Mitchell (1990) indicated that production technology influences management accounting in the following three areas. First, the increased automation of the production process will lead to the development of machinery and equipment performance measures through the identification of 'cost drivers'. Secondly, the short production cycle and growth will initiate delayed costing and replacing overhead rates with direct charging. Finally, the development of quality cost information will be influenced by the importance of maintaining quality standards.

3.6.3.4 Employees

Employees are another key factor that can contribute to management accounting change. Granlund (2001, p. 162) proposed that the human factor should be carefully considered in the development projects of accounting systems. People change accounting and, in this sense, employees cause all management accounting changes (Granlund, 2001). Nonetheless, they may also be an inciting force in change and not merely a vehicle by which it occurs. According to Klammer and Walker (1984), the majority of all employees have been exposed to new techniques through their previous education, attending presentations, seminars and reading published articles. Thus, these contacts provide sources to new thoughts to apply in their current organization. In addition, change may occur from employing new experienced accounting staff (Armstrong, 1985) or exposing them to the international manufacturing operations and information systems (Edwards and Newell, 1991). Furthermore, there may be a need for the company to change part of its management accounting system to fit the internal power struggle between the capital providers and the employees. Usually, this would include the company's reward systems (Amat *et al*, 1994; Ezzamel, 1994; and Foster and Ward, 1994) which, in turn, is largely reliant on performance measurement information.

Moreover, the impact of employees on management accounting practices has been investigated in the previous studies. For example, Al - Nimer (2010) carried out research which aimed to provide a view of the current role of management accounting practices in the Jordanian financial sector. The study revealed that the number of employees and other contingency factors had a significant impact upon the sophistication level of management accounting practices.

3.6.3.5 Problems of Existing Techniques

The insufficiency of existing management accounting systems is closely related to the introduction of new systems. The present techniques may not be sufficient or satisfactory for this current organization's processes (Armstrong, 1985). There might be inadequacy in the traditional systems as the role of the traditional industries declines (Lapsley and Mitchell, 1994) and shortcomings are also probably due to the lack of reliability of conventional costing (Askarany and Smith, 2000). For example, products are changing quickly with shorter product life cycles in a high technology environment.

High technology production has changed cost structure with more emphasis on indirect instead of direct cost. This has resulted in organizations adopting more suitable systems for controlling overheads. The motivation for activity - based costing (ABC) derives from a need to modify inequities in conventional volume - based allocation systems for these indirect manufacturing costs. The design of activity - based costing (ABC) is that diverse production support activities that are similar should be categorized together. Then the cost of these activities is gathered to shape an activity cost pool and a single activity driver is utilized for each of them in costing products (Anderson, 1995; Cobb *et al*, 1995).

In addition, organizations are faced with frequent capital investment decisions, due to shorter product life cycles in high technology environments. Nevertheless, conventional capital investment appraisal techniques are not without shortcomings. Shank (1996) argued that the traditional systems of capital investment analysis do not comprise the full influence of the technology change decision. For instance, the net present value places such a premium on short - term financial outcomes and little attention on the difficulty to quantify issues such as quality

enhancement or manufacturing flexibility. The study suggested that high technology organizations adopt strategic cost management. In addition, this approach evaluates strategic issues in capital investment appraisal.

3.6.3.6 Deterioration of Financial Performance

A poor financial performance itself generates pressures for action to be taken which will improve performance measures. Therefore, as a reaction to the deterioration of financial performance in an organization, there is a need to adopt new management accounting systems as a result of a dip in performance. Changes in the management accounting system may provide the solution to an increased demand for information. Thus, better performance and useful information will be provided for an organization through adopting new techniques.

Innes and Mitchell (1990) found out that deterioration in financial performance is a catalyst (see classification of catalyst in section 3.4) which triggered new developments in the turbulent world of high technology organizations. Their result was confirmed by Haldma and Laats (2002) who observed in a more general study that: “....*dissatisfaction with the performance measurement system, which was unable to provide appropriate information for decision - making served as a significant catalyst in improving the cost accounting and MAS*” (p. 396).

Figure 3.2 shows the six sub - groups of micro - organizational factors (Internal Factors) listed above and the related factors that fall under each respective heading.

Figure 3.2

Micro - organizational Aspects (Internal Factors)					
Organizational Structure	Managerial Policies	Production Technology	Employees	Problems of existing Techniques	Deterioration Of Financial Performance
Level of decentralization	Corporate expansion	Technological innovation	Widespread of knowledge	Insufficient the existing systems	New assessment and adopted
	Change in strategies	High-technology process	Internal power struggle	Declining role of traditional industries	Need to justify actions
	Restructuring of organization	Shorter product life-cycle		Lack of efficiency	Information quality performance evaluation
	Constant improvement	Change in production process		Capability of the traditional cost	
		Quality improvement			

3.7 Perspectives on Management Accounting Change

The preceding section has categorized and discussed several factors that researchers have identified as drivers of management accounting change. This section concentrates on the process of management accounting change. It explores how these factors cause change. There is no doubt that change has to be affected by people as the process is a behavioural one, albeit one which can be viewed from diverse perspectives. This is accomplished by viewing these factors as components of a process by which change is affected. Much of the existing research has concentrated on management accounting change as an outcome. In other words, less research has been directed to *why* and *how* a company's management accounting becomes what it is, or is not, over time. Burns and Scapens (2000) stated that *"[l]ittle research attention has been given to understanding the processes through which new management accounting systems and practices have emerged (or failed to emerge) through time"* (p.4).

According to management accounting literature, there has been a variety of perspectives on change in management accounting. These perspectives provide a basis to explain accounting change in a more complete way. Moreover, adopting a process perspective has facilitated the application of various frameworks to this end. Wickramasing and Alawattage (2007) divided these perspectives into two approaches: (1) the rational perspectives on change in management accounting which are related to neo - classical economic theories, including agency and contingency theory; (2) the interpretive and critical perspectives on change in management accounting that are involved with institutional, networks and political economy. The following sub - sections discuss the process of change in management accounting from each of the above perspectives.

3.7.1 Neo - classical Economic Theory

Neo - classical theory appeared in the second half of the 19th century. In addition, the basic characteristics of this theory have been amended to concentrate on values to benefit all from production to demand (Scapens, 1990; Samuels, 1995). Scapens (1990) points out that neo - classical theory is coming under attack from both inside and outside the economics profession. Neo - classical theory also studies the aggregate behavior of organizations at a market level. It is assumed that individuals in organizations interact instantly with environmental changes by attempting to make optimal decisions (Scapens and Burns, 2000). Furthermore, neo - classical economic theory is based on fundamental assumptions, which are rationality and equilibrium. Therefore, it has difficulty and complexity in analyzing the processes of change in management accounting (Scapens and Burns, 2000).

Neo - classical economic theory is limited in its assumptions regarding the behavior of managers within organizations. It is argued that managers' behavior within specific organizations cannot be explained by neo - classic theories (Scapens, 1994). Moreover, the limitations of utilizing neo - classical economics are due to the use of a static approach and mechanistic thinking in which knowledge, choice, purpose and qualitative change are excluded from the analysis (Hodgson, 1993). For these reasons, neo - classical theory of the organization has been criticized as a basis for explaining the management accounting systems found in practice (Scapens, 1990; Burns and Scapens, 2000). As a result, agency theory and transaction cost economics have been increasingly used to reflect economic - based rationales for management accounting (Scapens, 1994). Moreover, agency theory and transaction cost economics were developed within mainstream economics: as an extension of neo - classical theory and sometimes referred to as new institutional economics.

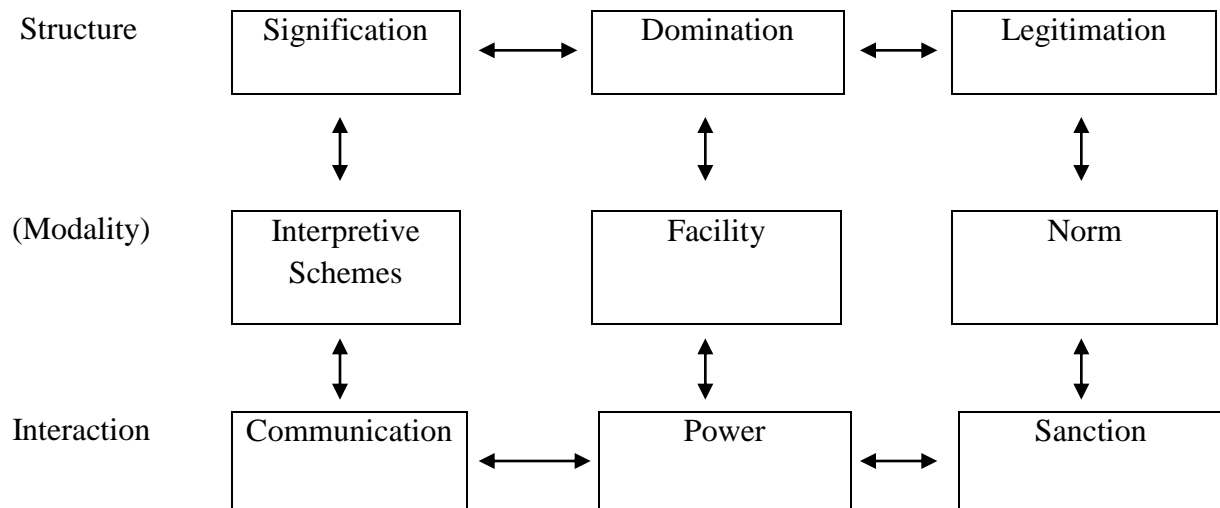
New institutionalists have made some modifications in the neo - classical assumptions concerning economic consistency (Burns and Scapens, 2000). They also highlight the importance of transaction cost minimization (Dugger, 1995). Dugger confirms that the new institutionalists develop “*new models but not new theory*” (p. 453). However, new institutionalism neglects the key contribution of institutionalist literature. New Institutional Economics “*is concerned with the structure used to govern economic transactions*” (Scapens, 2006, p. 11). It also expands the conventional economic approach and employs the assumptions of economic rationality and markets to the governance of companies (Scapens, 2006).

3.7.2 Structuration Theory

The main concern of structuration theory is the relationship between individuals and society; rejecting conventional dualistic perspectives that see or observe social phenomena as determined either by objective social structures, which are properties of society as whole, or by independent human agents (Giddens, 1984; and Jones, 2008). Giddens (1984) suggests that structure and agency are a mutually constitutive duality. Therefore, social phenomena are not the product of either structure or agency, but of both. Social structure is not independent of agency, nor is agency independent of structure. In other words, human agents rely upon social structures in their actions, and at the same time these actions provide service to produce and reproduce social structure. In addition, Giddens (1984) pointed out that social systems include three structural dimensions for analytical purposes: *signification, domination and legitimation*. Regarding corresponding dimensions of interaction, described as *communication, power, and sanctions*, are identified, with which the structural dimensions are related through modalities of, respectively, *interpretive schemes, facilities, and norms* (see Figure 3.3).

This theory was developed as a theoretical framework that enables management accounting research to comprise social and political phenomena for the purpose of understanding accounting practices (Macintosh and Scapens, 1990; Roberts and Scapens, 1985). Norman Macintosh has utilized structuration theory to analyze accounting and control systems as well as organizational change (Macintosh and Scapens, 1990; Macintosh, 1994).

Figure 3.3: The Dimensions of the Duality of Structure



Taken from Giddens (1984, p. 29).

3.7.3 Structuration Theory and Management Accounting Change

Giddens' theory of structuration has been proposed as a useful means of conducting alternative management accounting research by some researchers (Giddens, 1984; Macintosh and Scapens, 1990; Macintosh, 1994; Conrad, 2005; Englund and Gerdin, 2008; Busco, 2009; and Moore, 2011). For example, Macintosh and Scapens (1990) proposed a helpful framework for research pertinent to management accounting to expand its domain to comprise social and political phenomena. They concluded that “[s]tructuraton theory is a more focused,

informative, integrative, yet efficient way to analyze how accounting systems are implicated in the construction, maintenance and changes of the social order of an organization, than many frameworks used in previous studies” (p. 455). However, Boland (1993) criticized Macintosh and Scapens’ (1990) argument because they summarize the relation of management accounting systems to structuration theory in somewhat strong terms including references to interpretive schemes, norms and facilities. Also, Boland (1993) criticized their recommendation for using structuration theory as a helpful framework for management accounting researches by saying that they “*do not really allow us to see the ‘knowledgeable, purposive human actor’who is producing and reproducing social structure through management accounting practice” (p. 126).*

Furthermore, Conrad (2005) has used structuration theory as an analytical framework for studying the consequences of regulation for management control and organizational change in privatized gas industries. He argues that structuration theory is adopted as an analytical framework because of its demonstrated capacity to take into consideration the interaction of agency and social structures in the production, reproduction and regulation of social order, together with its potential for an analysis of organizational change. Although the system and structure concepts are contributing to the understanding of the nature of management accounting, nonetheless, structuration theory is not particularly useful for exploring processes of change. Archer (1995) argued that structuration theory does not include historical events. In addition, Burns and Scapens (2000) adopted the fundamental features of structuration theory and the process of institutionalization in two case studies of management accounting change. They confirmed that structuration theory is not helpful for investigating processes of change in management accounting. Moreover, Uddin and Tsamenyi (2005) draw on the dialectic of

control from structuration theory to examine the changes to budgetary control and performance monitoring in a state enterprise, Ghana Food Distribution Corporation (GFDC). Their findings showed that budgetary practices at the GFDC did not change substantially, with the exception of the reporting practices. Budgeting remained politicized, delayed, directionless and ineffective. Reporting to the monitoring agency did not make any positive changes to accountability and performance and was thereby unable to serve public interests.

3.7.4 Agency Theory: Principal - Agent Relationship

In the early stage of the 1970s, the agency theory literature extended the analysis of the risk sharing problem, which referred to different attitudes towards risk between cooperating parties, to include the agency problem that occurs when cooperating parties have different objectives and division of labour. In the 1970s and 1980s, the emergence of agency theory had a deep influence on research related to management accounting (Indjejikian, 1999). Jensen and Meckling (1976) defined the agency relationship as *“a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent”* (p. 308). Overall, an agency relationship exists when one or more individuals (principals) hire others (agents) in order to delegate responsibilities (Baiman, 1990; Wichramasinghe and Alawattage, 2007).

Agency theory is largely concerned with two fundamental problems that arise in the agency relationship. The first problem arises when the principal's and the agent's objectives are conflicting and it is difficult for the principal to assess the agent's efforts and actions. The problem in that case is that the principal cannot confirm whether the agent has behaved

appropriately. The second problem concerns risk sharing and arises when the principal and the agent have different attitudes toward risk. Different risk preferences lead the agent to take different actions from what the principal would prefer (Eisenhardt, 1989).

The agency literature refers more often to the first problem, which typically takes two different forms: the problem of *adverse selection* and the problem of *moral hazard* (Eisenhardt, 1989).

The adverse selection arises due to pre - contractual information asymmetries, whereas moral hazard typically refers to lack of effort on the part of the agent. More generally, it refers to the risk of opportunism, i.e. “self - interest seeking with guile”, as defined by Williamson (1975). Concerning the second problem in the agency relationship, risk sharing between principal and agent; it would still exist, even if there were no problems of asymmetric information between the two parties (Eisenhardt, 1989).

According to economic literature, there are different classifications of agency theory. Several researchers have mentioned that agency theory has been divided into two streams, *positivists* and *principal - agent* (Jensen and Meckling, 1976; Jensen, 1983; Eisenhardt, 1989). According to positivists’ agency theory, the focus of researchers has been the identification of conditions in which the principal and the agent have conflicting aims and the description of governance mechanisms that limit the agent’s opportunistic behavior. These mechanisms mitigating the agency problem are the use of outcome - based contracts and the use of information systems. Researchers also study almost exclusively the relationship between the owners and managers of large companies.

Regarding principal agent research, this stream of agency theory is concerned with a boarder range of principle - agent relationships than positivist theory such as buyer - supplier,

employee - employer and consultant - client. The theory according to this stream is based more on applications of information economics. According to its suggestions, the degree of risk aversion of the agent is positively related to preference for a behavior - based contract and negatively related to preference for an outcome - based contract. The opposite is proposed to the case of the principal concerning the relationships with an outcome - based contract and a behavior - based contract.

3.7.5 Agency Theory and Management Accounting Change

Agency theory demonstrates why there is a demand for management accounting systems to be adopted and changed by companies. Baiman (1980) conducted a survey to study management accounting practices by using agency theory. One of the main objectives of this study was to explore what guidelines and insight the agency model could provide to the managerial accountant. Numerous management accounting concepts are proposed in the study. Therefore, agency theory is utilized to justify using traditional management accounting systems such as cost allocations, budgeting, variance investigations and performance evaluations. These all assist the principal to control the agent. For instance, agency theory can give the managerial accountant useful insights into the implications of the selection and design of any performance evaluation which may suit certain company's principal - agent relationship.

Furthermore, Eisenhardt (1989) confirms that the agency theory is a useful theoretical guide for various sciences, including accounting, economics, finance, marketing, political sciences, organizational behavior and sociology. According to Indjejikian (1999), agency theory was used to explain different kinds of management accounting practices, for example, participative budgeting, cost allocations, transfer pricing and variance analysis. Indjejikian (1999) argues

that the main contribution of agency theory to management accounting literature has concerned the principle of controllability. Agency theory can also be a useful theoretical guide for managerial accountants to choose a particular information system from different alternative systems (see Namazi, 1985). This choice establishes a basis for communicating managerial accounting reports. Namazi (1985) proposed three different report outputs that reflect different alternative systems:

“...an accounting information system that reports output only; and accounting information system that reports both the output and labour’s effort; and accounting system that incorporates additional endogenous variables that affect the production process and pareto-optimal fee schedules” (p. 114).

On the other hand, there are a number of criticisms that can be made of the agency theory about the principal - agent relationship. Indjejikian (1999) shows the criticisms of agency theory that are related to its relationships. The first criticism: shareholders’- managers’ relationships are more complicated than standard principal relationships. The second criticism: the idea is that numerous shareholders - managers’ relationships involve informal arrangements and understandings regarding principals’ duties and responsibilities. The third criticism: organizations have many employees whose interactions and collective behavior influence the nature of a company’s incentive problem beyond those captured by the classical agency model. The fourth criticism, organizations have suffered to allow employees to develop and improve their productivity while providing the employer opportunities to replace shirking employees, and redesign performance assessment.

3.7.6 Contingency Theory

The concept of contingency theory was first developed in the organization theory in early to mid - 1960s. Nevertheless, the theory was only recognized by the accounting literature in the mid - 1970s (Otley, 1980). The contingency theory approach to management accounting is based on the premise that there is no generally appropriate system of accounting, management or control that can be applied equally to all organizations in all situations and there may be a match between factors specific to the organization and the design of the organization's management accounting and control system (See for example, Lawrence and Lorsch, 1967; Gordon and Miller, 1976; Hayes, 1977; Waterhouse and Tiessen, 1978; Otely, 1980; Ginzberg, 1980; Govindarajan, 1984; Drazin and Van de Ven, 1985; Jones, 1985). Rather, it attempts to identify specific characteristics of an accounting system which are associated with certain external and internal factors surrounding organizations such as environment, technology, organizational structure, age, size and power (see for example, Otley, 1980; Haldma and Laats, 2002; Chenhall, 2003).

According to Covalleski *et al* (1996), contingency theory is defined as *“a theoretical perspective of organizational behavior that emphasizes how contingent factors, such as technology and the task environment affected the design and functioning of the organizations”* (p. 4). Chenhall (2003) argues that the main stream of contingency studies is to address the contingent nature of management accounting systems and to be concerned with how management accounting practices might be affected by a selection of contingent variables. He also confirms that early management accounting researchers drew on contingent factors to investigate the importance of environment, technology, structure and size to the design of

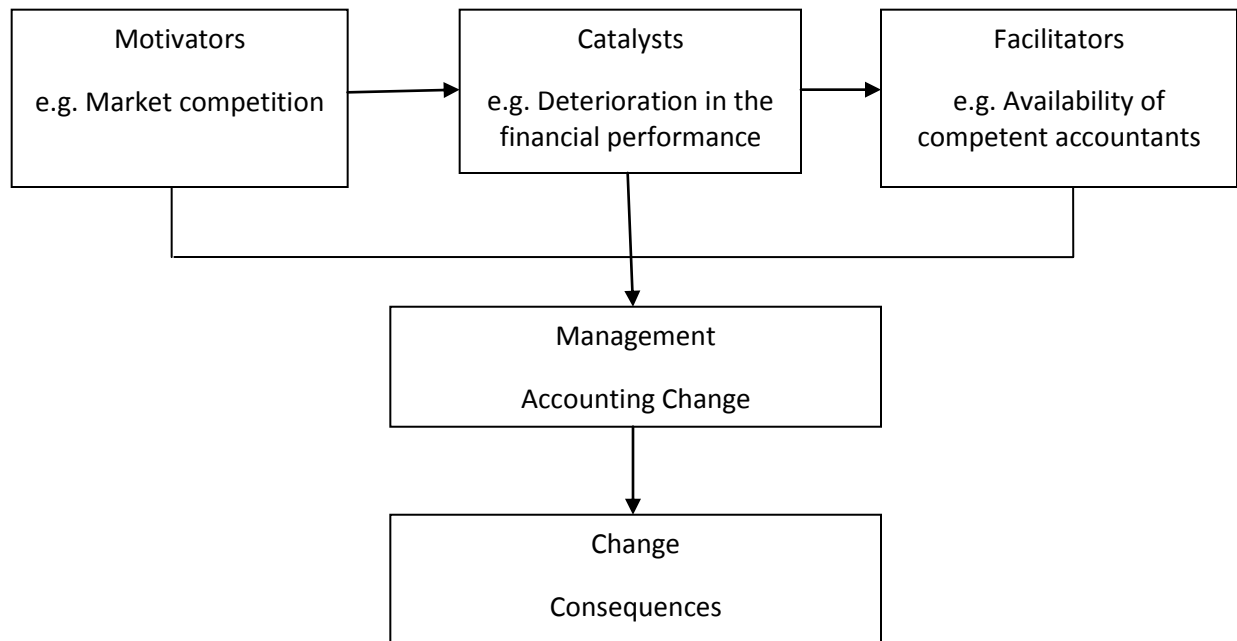
management accounting systems. Otley (1980) also highlights the importance of a contingency framework in explaining how management accounting is affected by various factors and how it is integrated into a wider context of organizational control systems.

3.7.7 Contingency Theory and Management Accounting Change

This section relates to work by researchers who have adopted the contingency theory approach in their studies regarding change in management accounting. In his study of contingency theory, Jones (1985) considered both external and internal factors. External factors, as identified by Jones, included competition and technology and internal factors included organizational size and structure, goals, management philosophy, culture and choice of the dominant coalition within a company. In another study, Fisher (1995) considered five contingent factors influencing control within an organization including the external environment, competitive strategy and mission, technology, unit, firm and industry variables, and knowledge and observable factors. He found out that all five factors affected the choice and effectiveness of management control systems.

Innes and Mitchell (1990) developed a framework to explore the process of change in management accounting in seven electronic enterprises. They concluded that the change has taken place in the analyzed companies as a result of a combination of three kinds of contingent factors, classified as motivators, catalysts and facilitators (see Figure 3.4). Thus, Innes and Mitchell (1990) provide their framework of change in management accounting. Accordingly, Cobb *et al*, (1995) and Kasurinen, (2002) applied Innes and Mitchell's framework in order to understand how the three contingent factors mentioned above combine and interact to shape change in accounting systems.

Figure 3.4: The Process of Change in Management Accounting

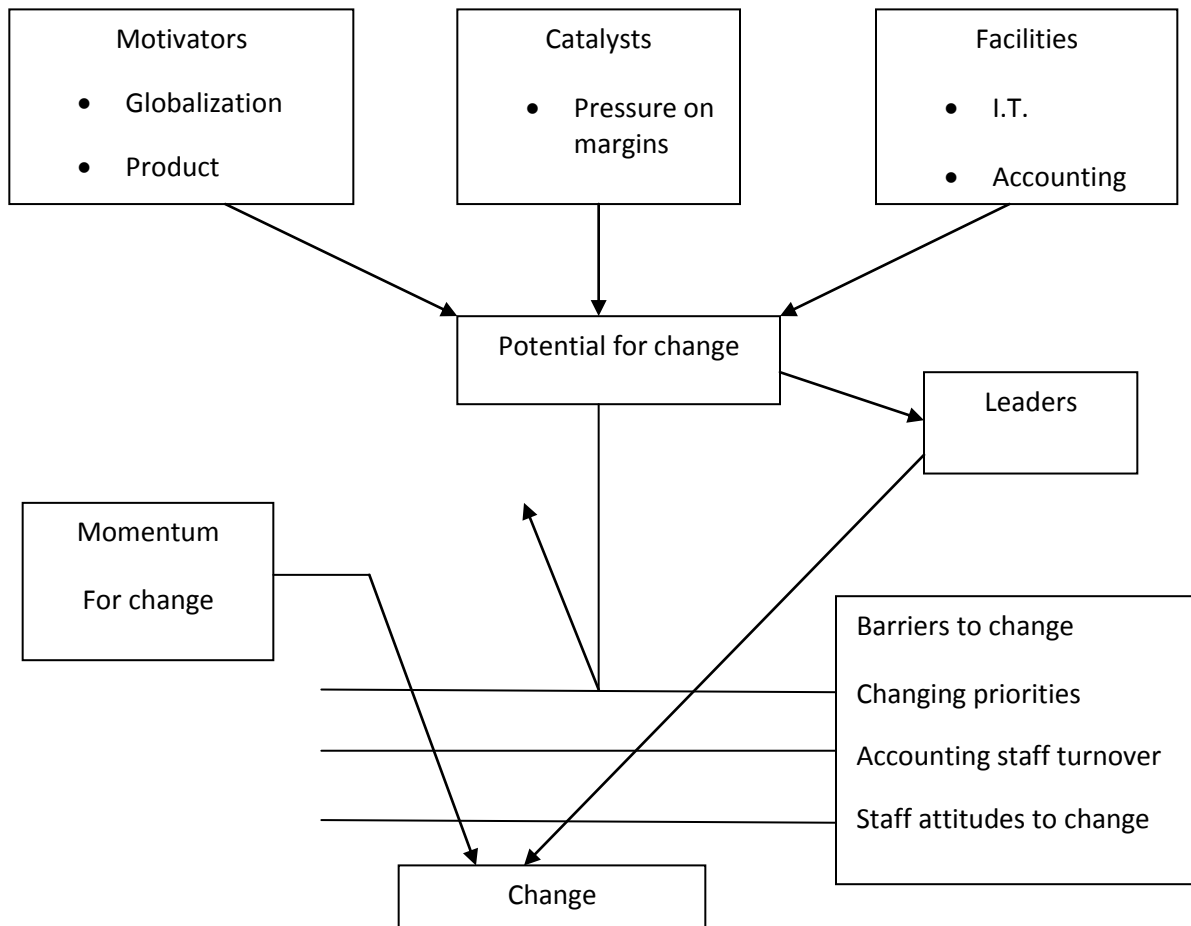


Source: Innes and Mitchell (1990, p. 14).

Cobb *et al* (1995)¹¹ provide a more complicated framework based on the Innes and Mitchell framework. Cobb *et al* considered three more factors: the role of leaders, the momentum (expectation of continuing change) and the barriers that delay or prevent change (see Figure 3.5). In their study, Cobb *et al* (1995) suggested that the motivators, catalysts and facilitators provide the potential for change but they may not make a change without the leaders' help and the momentum for change. Their study concluded that the management accounting system had changed significantly during the period of the study as response to a change in the banking environment.

¹¹ Cobb *et al* (1995) investigate the change in management accounting systems in a UK-based bank, conducting a four – year longitudinal case study which reveals how the need for new management accounting systems has emerged through internal and external pressures, for example, financial pressures, globalization, lower cost technology and product innovations.

Figure (3.5): The Accounting Change Model



Source: Cobb et al (1995, p. 173)

Kasurinen (2002) used Cobb *et al*'s (1995) framework to examine the barriers to change in management accounting that are associated with an implementation of the balanced scorecard system. His accounting change model was modified by dividing the barriers into three sub - categories: confusers, frustrators and delayers. Kasurinen (2002) provides a revision of the framework of Cobb *et al* (1995) to analyze the influencing forces of change at the early stages of a project. Moreover, Kasurinen's (2002) framework is used by Pimental and Major (2009) to explain change in management accounting and the barriers to change in a Portuguese service company using the balanced scorecard system. According to Innes and Mitchell (1990), Cobb

et al (1995) and Kasurinen (2002), management accounting systems have been affected by three types of contingent factors that are classified as motivators, catalysts and facilitators. (1) Motivators were related to change in a general way. These motivators included the motivating function of a competitive market, organizational structure and production technology. (2) Catalysts could be directly related to change, including poor financial performance, loss of market share and the launch of a computing product. (3) Facilitators were essential but not adequate. These facilitators are termed, the facilitating function of accounting staff resources, accounting computing resources and a degree of independence from the organization.

Although Innes and Mitchell's (1990) framework has added a useful contribution to studying the process of change in management accounting, it nonetheless faces some criticisms. Cobb *et al* (1995) criticized Innes and Mitchell's framework that ignored barriers or factors which hinder and prevent change. Moreover, Innes and Mitchell's framework is strong in concentrating on external factors but it has some weakness with respect to how the process of change happens within the organization, particularly the effect of individuals. Kasurinen (2002) supports Cobb *et al* (1995) in their standpoint.

Several categories of contingent variables may be related to management control systems in complex companies. According to Libby and Waterhouse (1996) and Williams and Seaman (2001), different elements and variables change at different rates. Management accounting and control system (MACS) support in a decision - making and control change more frequently than those support planning, directing or product costing. Libby and Waterhouse (1996) conducted a survey of management accountants to identify predictors of change in 23 management accounting and control systems in 24 Canadian manufacturing organizations. They used four variables as predictors of change, namely: decentralization, size, competition

and organizational capacity for change. Technology is absent from these factors, the researchers explained that they could not reliably measure technological change. Their study found external forces (economic, social and political forces) for change similar to those four variables mentioned above. The study also found that moderate support for competition drives change to management accounting and control systems. Furthermore, it was noted that there was a large correlation between size (measured by number of employees as proxy) and organizational capacity for change.

Williams and Seaman (2001) replicated the model developed by Libby and Waterhouse (1996) to explore changes in a population of 23 management accounting and control systems (MACS), and the five components of planning, controlling, costing, directing and decision - making. The determinants of size, organizational capacity, competition and centralization (replacing decentralization) are utilized to examine the sample of manufacturing companies in Singapore. They found out that the four factors mentioned above drive change in management accounting and control systems. In addition, regression results from survey data partially support the cross - national transferability of their findings. In their study, Williams and Seaman (2001) stated that “*additional variables could be added to the model to refine measurements*” (p. 457). As a result, the researcher recognized that many factors not used in contingency theory are likely to impact on management accounting change. Therefore, limited explanation was found by using contingency theory (Libby and Waterhouse, 1996; Williams and Seamans, 2001).

Furthermore, many researchers have made several significant contributions regarding management accounting based on contingency theory perspectives (see for example, Luther and Longden, 2001; Haldma and Laata, 2002; Waweru *et al*, 2004; Kattan *et al*, 2007; Fakhri

et al, 2009; Huang *et al*, 2010; Nimtrakoon and Tayles, 2010). According to Wickramasinghe and Alawattage (2007), the contingency theory of management accounting, which is still in use as a popular framework for management accounting, has changed from mechanistic to post - mechanistic approaches. Therefore, there have been numerous attempts to propose a contingency theory framework of management accounting. For instance, some frameworks are introduced by (Gordon and Miller, 1976; Otley, 1980; Innes and Mitchell, 1990; Cobb *et al*, 1995 and Haldma and Laats, 2002). Consequently, *“there is a need for another framework to explain contingent factors of management accounting systems which have been changed over time”* (Zoubi, 2011, p. 62). In accordance with Child (1975), contingency theory has the ability for reorganizing, accepting and altering to new contingencies, regardless of the type of company and its operating situation.

However, contingency theory has faced some criticisms. Firstly, the findings of contingency theory cannot be generalized to each position. Moreover, prescriptive inferences of these findings cannot be used without suitable consideration of other factors (Wickramasinghe and Alawattage, 2007). Secondly, contingency theory has employed cross - sectional analysis, which depends on survey questionnaire and has not afforded an in - depth understanding of how management accounting system emerges within organizations (Otley, 1980; Hopper and Powell, 1985; Chenhall, 2003). A further criticism is that the processes of change in management accounting cannot be analyzed by contingency theory (Scapens, 1994). Thirdly, all frameworks of contingency theory (Gordon and Miller, 1976; Otley, 1980; Innes and Mitchell, 1990; Cobb *et al*, 1995; Haldma and Laats, 2002) have supposed that the relationships are linear and unidirectional (Wickramasinghe and Alawattage, 2007). Finally,

there is no agreement concerning the set of contingent factors influencing organizations and several factors are not clearly defined (Fisher, 1995).

3.7.8 Institutional Theory and Management Accounting Change

The influence of institutional theory on research pertinent to management accounting has been classified by Moll *et al* (2006) under three sub - headings, as follows: (1) Old Institutional Economics (OIE); (2) New Institutional Sociology (NIS) and (3) New Institutional Economics (NIE). In the context of research related to management accounting, institutional theories will focus researchers' attention on the institutional forces, both external and internal, that can impact, and be influenced by, management accounting practices (Moll *et al*, 2006). However, the focus in this section is only on the issues related to studies which applied institutional theories: OIE and NIS.

3.7.8.1 Old Institutional Economics and Management Accounting Change

OIE theory has been adopted by an increasing number of management accounting researchers. The majority of researchers have utilized such theoretical insights to highlight the change in management accounting practices (Scapens, 1994; Burns, 2000; Burns and Scapens, 2000; Collier, 2001; Siti-Nabiha and Scapens, 2005; Lukka, 2007). In his work, Scapens (1994) was the first to remarkably adopt OIE insight as a pathway for exploring management accounting practices. He argued that management accounting is "*a routine feature of organizational behavior*", and therefore "*management accounting could be regarded as comprising institutionalized routines*" (1994, p. 313). Subsequently, Burns and Scapens (2000), building on the earlier work of Scapens (1994), defined an institution as "*the taken - for - granted assumptions which inform and shape the actions of individual actors*" (2000, p. 8). Institutions

develop over time and cannot constantly be understood utilizing neo - classical (rational - equilibrium) approaches to economics. According to Wickramasighe and Alawattage (2008, p. 429), the dimensions of institutions (rules, routines, habits. etc.) can, nonetheless, explain non - rational economic behavior and how alternative (non - equilibrium) courses of action are constructed and developed.

In their study of OIE theory, Burns and Scapens (2000) adopted OIE theory to develop a framework for conceptualizing change in management accounting. Thus, change in management accounting is conceived as change in organizational rules and routines. They also adopted the essential features of structuration theory and the process of institutionalization in two case studies of change in management accounting. As a result, different kinds of change in management accounting were derived: formal and informal (intended or unintended) and regressive or progressive. Formal change happens by conscious design typically through the introduction of new rules or the actions of an influential individual or group. For instance, this has happened in several companies with the introduction of new systems or techniques such as Balanced Scorecard (BSC). However, informal change happens at a more implicit level, for instance, through adapting new management accounting systems over time. The second type is regressive and progressive change which stems from the individual behavior. Regressive change relates to ceremonial behavior that arises from a value system which distinguishes between human beings and preserves existing power structures. However, progressive change refers to instrumental behavior that comes from a value system which applies the best available knowledge and technology to problems and seeks to enhance relationships.

Burns (2000) conducted a study to explore accounting change in the product development department of a small UK chemicals company, using both an institutional framework and a

framework of power mobilization to assist us in understanding the dynamics of the processes of change. He also shows barriers to change and conflicts which emerge as new accounting routines fail to impinge on existing laboratory ways of thinking. Furthermore, Vamosi (2000) proposed that the organization's management accounting practices are to a large extent a consequence of changes in the environment. Through the process of change, the ways of thinking, habits, routines and "cargoes – of – thoughts" cannot easily be wiped out. According to Collier (2001), two contributions have been made to institutional theory: (1) the particular development of understanding of relations of power; (2) an explanation of how loose coupling can take place through accounting. In addition, some previous studies obtained successful change by using Burns and Scapens' (2000) framework, for example, Lukka's (2007)¹² study concluded that the loose coupling between rules and routines has two aspects; solution and problem in the Finnish case study.

However, some criticisms have been made regarding OIE as follows:

- Insufficient attention to environmental pressures. OIE theory is criticized as its focus is primarily on the micro rather than the macro level. Burns (2000) argues that OIE is more suitable for studies of processes of change and resistance to change within organizations. Particularly, the theory is effective in investigating the role of power, politics and vested interests in management accounting change. Thus, OIE does not investigate management accounting change as the result of environmental pressures.

¹² Lukka's (2007) study focuses on the relation between formal rules and informal routines, and the role of this relation in management accounting change in the case study of Finnish firm. Theoretically the study contributes to recent literature on management accounting change and stability, primarily by drawing on the framework based on institutional theory by Burns and Scapens (2000).

- Rutherford (1995) argued that OIE theory is descriptivist, and uses behaviouristic rather than individualistic terms. The approach also argues in holistic rather than individualistic terms.

3.7.8.2 New Institutional Sociology and Management Accounting Change

NIS theory has its roots in sociology and is premised on the assumption that external factors cause homogenization amongst organizations (Moll *et al*, 2006). DiMaggio and Powell (1991) distinguish between two kinds of isomorphism, which are competitive and institutional isomorphism. *Competitive isomorphism* concerns efficiency. This efficiency mentions that organizational rationality and environmental rationality might correspond in the case of organizations in competitive markets (Hannan and Freeman, 1997). NIS has focused attention on three categories of *institutional isomorphism* change: “coercive, mimetic, and normative; isomorphism is the process through which one organization tends to resemble others in the same field” (DiMaggio and Powell, 1991, p. 66). *Coercive isomorphism* happens due to political and regulative influences; *mimetic isomorphism* when organizations seek to imitate the practices of other successful organizations and *normative isomorphism* when the norms of society and professional bodies impact on the practices of companies.

NIS theory also has impacted on management accounting research. For instance, NIS theory has been utilized to explain the convergence of management accounting practices in response to external forces such as political pressures, regulatory environment changes, rules of government, and cultural factors (see for example Granlund and Lukka, 1998; Collier, 2001; Ahmed and Scapens, 2003; Modell, 2003; Tsamenyi *et al*, 2006; Nor-Aziah and Scapens,

2007; Yazdifer *et al*, 2008). Furthermore, NIS theory was used in relation to the public sector such as universities, schools, hospital and other governmental companies.

Many researchers have adopted the NIS perspective in their researches. For example, Lapsley and Pallot (2000) conducted a study to explore management accounting in local government in Scotland and New Zealand in a situation of change. Modell (2003) has compared the goal - directed and institutional perspectives to the development of measurement of performance in Swedish universities. Two years later, Modell (2005) examined the political and institutional processes surrounding the construction of consumer - orientated measurement of performance practices. Moreover, Modell (2006) has explained how cost allocation rules are shaped by the political interaction between the main actors in the regulatory process. According to Yazdifar *et al* (2008), NIS theory can be harmonized with other institutional perspectives, which concentrate on internal organizational factors. Therefore, using another theory such as OIE theory can help in analyzing the complex dynamics of change at the micro level of an organization.

Hussain and Hoque (2002) also used NIS to understand and explain what factors influenced the design and use of non - financial performance measurement systems in four Japanese banks. They found that the performance measurement systems adopted by the studied banks, were significantly influenced by the external institutional and competitive pressures. Tsamenyi *et al* (2006) explored the changes in the cash management information system of a large Spanish electricity company (Sevillana). They concluded that the institutionalization of the new accounting and financial information system was shaped by the political and regulatory environment as external factor, and by the parent company's control as internal factor, and the influence of professional associations.

In a more recent study, Mohammed (2010) conducted a study to explore how management accounting and control systems (MACS) operate in four banks in Nigeria. NIS perspective of institutional theory was used in his study to understand and explain the results. The case study approach also adopted in conducting the research was useful in exploring the dynamics of the MACS in the four banks. Data were gathered from two sources: semi - structured interviews and external documents to support evidence for results. According to his study, NIS framework provided explanation for how the MACS in the four banks were shaped by various external and internal factors. The major factors identified as shaping the operations of the MACS were the need to comply with regulatory environment (*coercive isomorphism*), the need to retain social and cultural support (*normative isomorphism*) and the need to imitate or emulate other successful banks (*mimetic isomorphism*). The findings of the study have implications for understanding the operations of MACS in developing countries.

However, there are limitations in using NIS theory to study change in management accounting and the resistance to such change. NIS theory does not completely capture the dynamics of change. Collier (1999) has identified two shortcomings of NIS theory:

- (1) The inability at an institutional level to sufficiently recognize the disparities within the institutional environment, the relative power of different institutional actors, and the resistance to change which results from differential power;
- (2) the inability at the organizational level of analysis to provide a theory as to how these competing interests can be accommodated or reconciled by management through loose coupling (p. 9).

NIS theory has more macro focus; it does not explain how organizational members react to new systems or procedures that are implemented. The theory also fails to explain how loose coupling takes place (Collier, 1999).

3.7.8.3 Studies Using the Hybrid - Institutional Framework of OIE and NIS

A few studies in management accounting research literature adopted a hybrid framework, which combines OIE, NIS and power mobilization (Greenwood and Hinings, 1996; Siti-Nabiha, 2000; Siti - Nabiha and Scapens, 2005; Yazdifar *et al*, 2008; Ma and Tayles, 2009; Zoubi, 2011). For example, Siti - Nabiha and Scapens (2005) conducted a study to explore the relationship between stability and change within the process of accounting change in an Asian gas company. The researchers used both old institutional economics (OIE) and new institutional sociology (NIS). Their study concentrated on the formal way in which a new technique of value - based management (VBM) was applied and how the key performance indicators (KPIs) became decoupled from the daily activities of the company. The study illustrated that stability and change are not necessarily opposing forces as they can be intertwined in an evolutionary process of change.

According to Siti - Nabiha (2000), a hybrid framework of OIE and NIS can be utilized to examine the introduction of new systems, key performance indicators (KPIs) imposed by the parent company. The new system challenged existing ways of thinking and doing things. In addition, the parent company imposed revolutionary change on subsidiary company and an evolutionary path reliant on process has been followed. In addition, there was formal change, but ways of thinking and doing things in spite of everything the same. Siti - Nabiha's (2000) study concluded that the formal change might fail if it is not related to the change in either the way of doing thinking or existing institutions. Likewise, Ma and Tayles (2009) also used OIE and NIS to explore the issues which surround change and which enable the adoption of strategic management accounting (SMA) in a large UK pharmaceutical company. Their study

revealed an increasing strategic role for management accountants in informing strategic decision making and how this task came into being. They concluded that external influences “seemed to indicate strong demand for new management accounting practices” (2009, p. 490). Additionally, “competitive pressures impose strong demand on efficient conduct of commercial activities” (2009, p. 490).

3.7.9 Actor - Network Theory

Actor - Network theory (ANT) emerged in the 1980s stemming particularly from the work of Latour (1987) and Callon (1986). Both were scholars at the “Centre de Sociologie de L’innovation” in Paris at that time. ANT can be described as a material - semiotic approach which explores relationships between things (materials) and concepts (semiotics). Relationships amongst materials and semiotics may be form a network.

The concept of an actor in ANT is extended to comprise non - human actors, such as computer software, hardware and machines (Chua, 1995; Lowe, 2000). Both human and inanimate actors are termed actants. There is no distinction made in the abilities of technologies or humans (agents) to act as a principle termed generalized symmetry. It is through networks that actants derive their nature; without networks actants are indeterminate. Networks are “processual, built activities, performed by the actants out of which they are composed” (Ritzer, 2006). Thus, there is an intricate relation between actors (actants) and networks which bypasses the distinction between agency and structure. Ritzer (2006) pointed out that ANT is interested in the ways networks strengthen, gain coherence and stability, and become durable and functionally essential.

The main concept of ANT is translation. Callon (1986) used the term “translation” to refer to the process of forming a network. The process involves negotiations between actants to establish common objectives and meaning of a network. Callon (1986) suggested four steps in the translation process:

1. Problematisation: this defines the problem and the relevant actors who, by defining the problem and a method for dealing with it, make themselves indispensable.
2. Interessement: primary actors employ other actors to assume roles in the network, roles which recognize and support the centrality of the primary actor’s own role.
3. Enrolment: roles are defined and actors formally accept these roles.
4. Mobilization: primary actors assume a spokesperson role for passive network actors and seek to mobilize them to action.

The outcome of successful translation negotiations is an actor - network with a high level of convergence. Therefore, ANT can be considered a theory of the mechanics of power in that construction, stabilization and maintenance of networks are central (Ritzer, 2006). According to Bowker and Star (1996), the process of translation is the concept of displacement. Elements of networks may deviate and become mobilized through translation. Translation, thus, is both a practice (keeping a stable network) and an outcome (displacement).

3.7.10 Actor - Network Theory and Management Accounting Change

This section relates to work by management accounting researchers who have used ANT in their studies of change and stability. For example, Chua (1995) used ANT to provide an

account of how an “uncertain faith” (1995, p. 111) aligned differing interests in actor - networks in hospitals who were experimenting with new accounting systems. Lowe (2000) describes the translation process in actor - networks in the New Zealand healthcare sector. He also describes how pressures at a national level to emulate market forces, in turn, initiated problematisation at a local level. In his case study, a “towards clinical budgeting” project became the focus of the translation process (2000, p. 94). From weak beginnings, the resulting actor - network was translated into a stronger network and recruited other networks (ibid, p. 100). Lowe (2000), quoting Chua (1995) centres on a key tenet of ANT, namely; “to treat human actors symmetrically with objects, machines and technology” (2000, p. 85).

Dechow and Mouritsen (2005) used ANT to analyze management control systems in companies that have adopted the SAP enterprise resource planning system. They incorporate the notion of boundary objects, media through which networks of actors communicate to evaluate how the SAP technology integrated, and how this influenced the social reality of management control systems. Alcouffe *et al* (2008) also used ANT to explore how management accounting innovations are diffused through the translation process. They explored cases in France of how two management accounting techniques became included within actor - networks over a prolonged period of time. For instance, their research describes how Activity - Based Costing (ABC) was translated (in the language sense) from the US, which in turn was translated (in the ANT sense) to the technique as utilized at their case sites. They reported drift and adaptation as the translation happened, suggesting homogenization and heterogenisation of management accounting practices across actor - networks (ibid, p. 15).

3.7.11 Critical Theory and Management Accounting Research

Critical theory refers mainly to the work of researchers of the Institute of Social Research established in 1923 in Frankfurt. The most famous figures in this field are Max Horkheimer, Theodor Adorno, Herbert Marcuse and Jurgen Habermas (Laughlin, 1987); these four members who have molded the nature of critical theory as it is known in the present day. However, each of these intellectuals did not build on the insights of the others (ibid). Critical theory is a means through which understanding concept reality can be achieved and transformation of tangible institutions occurs. The conception of critical theory is that *“the present is not satisfactory, that reality could be better than it is, and that the methodological aspects of critical theory can create this improvement which marks out this thinking as essentially ‘critical’”*(Laughlin, 1987, p. 482).

In addition, critical theory has key characteristics that can be identified to clarify the technical and social aspects of accounting systems (Laughlin, 1987, p. 483): Firstly, critical theory proposes linking theory to practice in a dynamic manner. Thus, critical theorists must always have some type of impact on practical ‘real world’ phenomena. Secondly, critical theory sees critique, change and development as essential elements of the practice - based research attempt. This unabashed concern for critique of the current situation and the need for transformation to attain a better life might inject a fundamental ethical dimension into accounting research. Finally, critical theory sees social organizations in an historical and societal environment. The concern is to find out the frequently hidden meanings which exist in these environments. Thus, critical theory has always been addressed to transcend the tangible to the hidden and unclear contextual components to reveal the real meanings and factors that cause change.

With respect to changes in the accounting system, Laughlin (1988) conducted a case study of the accounting system of the Church of England. His study focused on this issue by using Habermas' critical theory (1984). The study also looked at explanations of the issues being investigated by concentrating on norms, roles, values and expectations of organizational members. Laughlin (1988) concluded that the social context shaped the technical practices of accounting, particularly, in the context studied, while religious work provided the central and sacred ideologies which shaped accounting.

3.8 Resistance to Management Accounting Change

The previous section has demonstrated numerous management accounting process theories or perspectives which can be utilized to explain development and change. This section of the chapter reviews some issues that relate to resistance to change in management accounting. Resistance to change is a subject that has received significant attention in the management accounting literature (Dawson, 1994). According to Dent and Goldberg (1999), the first published work on resistance to change was by Coch and French (1948), who concluded that one way to reduce resistance was to have members of the organization participate in the change programme.

Due to the problems found during the implementation of change in management accounting, some previous studies have discussed inconsistencies between theory and management accounting practices. For instance, Burns *et al* (2003) argued such questions as: do the employees of an organization understand the nature and importance of the new management accounting systems, and how will the new system influence different aspects within an organization (ibid). There is no doubt that resistance to change is a significant problem for the

implementation of management accounting change. Therefore, it is important when studying change not to ignore resistance. As stated by Scapens and Roberts (1993):

“It is important not to dismiss resistance to accounting change as illogical and emotional. Such resistance is probably informed by a whole variety of very real concerns and fears. It is only by exploring the organizational and historical contingencies which influence the process of accounting change that resistance can be understood” (p. 1).

This section will review many previous studies which have identified possible reasons for the resistance to management accounting innovation. Firstly, insufficient support or a lack of explanation at all levels of the organization such as managers, employees and owners will cause resistance to change in management accounting. Therefore, it appears that if there has been inadequate support provided by managers and senior company management during management accounting innovation, they may fear that with innovation their activities will become more visible to management (Kaplan, 1986; Innes and Mitchell, 1990; Scapens and Roberts, 1993).

There is some evidence from management accounting research that a new management accounting system faced resistance to change (Scapens and Roberts, 1993; Jansen, 2011). For example, Scapens and Roberts (1993) elucidated how the process of change in management accounting unintentionally created circumstances which overcome the contents of change. In their case study, they explored the dynamic of change and attempted to understand the reasons of resistance in the case company. They found out that their case company failed to guarantee the legitimacy of a new management accounting system drive to resistance to change. Furthermore, the managers in the Engineering Department did not understand their activities in terms of financial measurement performance due to their concern regarding quality, delivery and customer service (see, Busco et al, 2002).

In a more recent study, Jansen (2011) conducted a case study to explore how senior management introduced new accounting information to help its leadership style. According to his case study, the employees have resisted the change that senior management has imposed through the transactional leadership style. He also claims that resistance to new management systems is typical. However, the successful introduction of new management accounting systems signifies that the senior managers present personal concentration on employees, hence there is less resistance and change can take place (ibid).

Secondly, resistance to change can occur from the complexity and difficulty of modifying the existing computerized systems (Kaplan, 1986). Scapens and Roberts (1993) point out that failing to consult the system users at a sufficiently early stage will result in more resistance to change. Consequently, it is helpful to have adequate preparation before introducing any system of management accounting in an organization (ibid). For example, research findings of Scapens's *et al* (1998) revealed that the implementation of SAP information system often fails in UK companies, although it has widely been adopted. This is due to the perception of managers and employees of a company that under the new technique they cannot do what they could formerly do (ibid).

Thirdly, organizational culture may also resist change in management accounting. Overall, organizations can be understood as mini - societies, which have their own distinctive forms of culture and characteristics. Moreover, management accounting systems can impact on the distribution of power within an organization in different ways. This may guide resistance, for example, systems gather and manipulate information used in making decisions (Brook and Bate, 1994). Brewer (1998) emphasizes the significance of culture and its impact on the

relative success of implementing Activity - Based Costing (ABC) system as an advanced technique. He pointed out that employees might in practice resist change in management accounting (ibid).

Fourthly, inadequate education: the sponsorship process and an inadequate internal commitment process will create uncertainty of the new system and therefore resistance to change. Argyris and Kaplan (1994) stated that an adequate education and sponsorship process allows supporters of change to obtain management support for the proposed idea. In addition, inadequate internal commitment will result in resistance to the process of change in management accounting because the purpose of encouraging commitment is to stimulate individuals to implement new ideas and take effective actions based on their implications (ibid).

The uncertainty that arises from the process of change can lead to a loss of familiarity with the current circumstances and this could lead to anxiety. Krantz (1999) argued that

“... [p]eople at all levels of organizational life do resist change because they use familiar, existing arrangements to help protect themselves against the anxieties that are stimulated by membership in group life. From a psychoanalytical perspective, resistance arises when people are faced with losing avenues for helping them cope with painful fears and anxieties and are thus more psychically vulnerable” (1999, pp. 43-44).

Fifthly, a possible reason for resistance to change in management accounting is the failure to persuade the parties involved of the validity of a new technique and the incapability to find a practical relationship between the languages of production and accounting. Scapens and Roberts (1993) claimed that the encountered resistance was rational. Similarly, there were some legitimate concerns raised. For example, the new system or technique may not only be a

potential threat to the independence of the organization but may try to place the organization managers more visibly under the divisional management. Moreover, there are concerns and fears that every department's design system may not satisfy the local demand of the organization (ibid).

Finally, other possible reasons for resistance to change in the management accounting system comprise lack of adequate role models combined with a lack of knowledge and experience with the new systems (Kaplan, 1986).

3.9 Previous Studies on Management Accounting in the Libyan Context

In the Libyan context, there have been few studies conducted in the field of management accounting (Gzema, 1999; Bait - Elmal, 2000; Omer, 2005; Alkizza, 2006; Shareia, 2006; Fakhri *et al*, 2009; Zoubi, 2011). They adopt a mixture of qualitative and quantitative methods. For example, Gzema (1999) examined the understanding of management control in the Libyan oil industry. On one hand, he used a questionnaire survey as quantitative method. His survey of the studied companies indicates that there is an influence of different institutional arrangements on management control systems. In the same vein, this approach shows that some factors such as political, social and embargos play a very important role in shaping management accounting systems in the Libyan oil companies. On the other hand, the results of studying the case study of oil companies reveal that accounting systems are components of the central control system and play a key role in satisfying the external parties instead of helping in planning, decision making and control.

Bait - Elmal (2000) explains the role of management control systems in Libyan public enterprises within their environmental context. Moreover, Omer (2005) conducted multiple

case studies to explore the situation of the management control systems in four Libyan manufacturing enterprises during their transition from the public to the private sector. He pointed out that there is not only a change in the ownership of these four enterprises, but there is also a change sought in organizational objectives towards profit orientation. Furthermore, Information Technology (IT) facilities were introduced with limited capacity. Consequently, all accounting operations were manually recorded. In addition, there has been a change in management accounting systems in terms of perceptions.

Shareia (2006) examines the role of accounting information systems in meeting the development needs by focusing on two case studies in Libya. One of the main objectives is to examine the provider of information. In his study, the results disclosed that the accounting career does not play a vital role in the economic development in Libya. Moreover, accounting practices in Libyan companies are fundamentally institutionalized by governmental instructions rather than decision making, planning and control (ibid). In addition, he emphasizes that there was no existing role for management accounting systems in the two studied companies and no one reads the reports of these systems.

To the best of the present researcher's knowledge, very few previous studies have focused on management accounting change in the Libyan context. For example, Alkizza (2006) examined the change in management accounting practices utilized by Libyan public firms following the change of the country's economy in the 1980s from a socialist, centrally - controlled to an open market based system. He used Innes and Mitchell's (1990) framework, contingency theory, a questionnaire survey for examining change across a large number of cases, and the case study method for an in - depth investigation of this change at the micro organizational level. The study revealed that some contingent factors have caused change in management

accounting practices in Libyan public firms. His study also focused on the consequences of management accounting change.

In the case of the Libyan banking sector, Fakhri *et al* (2009) conducted a survey to investigate the impact of four selected contingent factors namely organizational structure, level of competition, size of bank and business strategy of banks on the use of the financial and the non - financial performance measurement system in the Libyan banking sector. It also explores the extent to which Libyan banks have adopted modern technique such as the Balanced Scorecard (BSC). The study was conducted by sending questionnaires during the second half of 2008. They concluded that most of the Libyan banks are heavily reliant on financial performance measures and few Libyan banks had adopted the BSC.

In a more recent study, Zoubi (2011) examined the processes of management accounting change in two privatized Libyan manufacturing companies. This study also investigated the perceptions of managers concerning the emergence of new management accounting system (Information Technology IT). Furthermore, it explored the impact of institutional factors on management accounting system. He used the hybrid - institutional framework of new institutional sociology (NIS), old institutional economics (OIE) and power mobilization for explaining the processes of change in the Libyan companies. Furthermore, he used triangulation methods of data collection, including interviews, observation, and documentation. The results of his study demonstrated that the objectives of the companies have changed totally from social to economic. In the same vein, there were institutional factors that affected management accounting system before, during, and after the privatization process. The study also made it clear that there was resistance to change when the companies tried to introduce the Information Technology System (IT).

The above studies focused on management control systems and advanced management accounting technique (BSC), using different systems and approaches, holistic theory and OIE theory (Gzema, 1999), interpretive and systems approaches (Bait - Elmal, 2000; Omer, 2005) and economic development theory (Shareia, 2006). In addition, there are three studies that have focused on change in management accounting: Fakhri et al (2009) conducted a survey to examine the impact of contingent factors on the use of the financial and the non - financial performance measures from a contingency perspective. Alkizza (2006) used contingency theory to examine the consequences of change, and Zoubi (2011) used the integrative approach using OIE, NIS and power mobilization. However, they focused on the process of change as an outcome, and none of them had given attention to the nature of change or the different types of change in management accounting and control systems.

3.10 Summary

This chapter has briefly discussed the significant role of management accounting information. It has also reviewed the historical development of management accounting. The concept and dimensions of change in management accounting are also discussed in this chapter. In addition, this chapter has principally presented previous studies that have attempted to investigate management accounting change and many factors, both external and internal. These factors may influence management accounting practices or systems in organizations. Furthermore, various theoretical perspectives have been discussed in this chapter. These theoretical standpoints have examined the change in management accounting systems such as structuration theory, agency theory, critical theory, contingency theory and institutional theory. Besides, this chapter has reviewed several main reasons for resistance to change in

management accounting. Previous studies on change in management accounting in the Libyan context have also been reviewed in this chapter.

With regard to research on change in management accounting, there are many previous studies that have concentrated on management accounting change within organizations. However, most of them reviewed it as an outcome. Researchers have been given a little attention to the nature of change, i.e., the different types of change in management accounting (see dimensions of change in Section 3.5) and the processes that have taken place to effect it. In other words, there is no general agreement upon the definition of change in management accounting. Since change in management accounting is not a uniform phenomenon and happens in a dynamic world, thus, many factors, including external and internal, are expected to cause changes in organizations. Little attention has been given by most researchers to the exact specification of the full range of causal factors. Consequently, many different terms have been utilized for similar causal factors that cause change in management accounting and the previous studies have focused on a limited number of causal factors. In addition, little consideration has been given to the interrelations between causal factors.

The literature review has also demonstrated a range of theoretical perspectives in explaining the process of change in management accounting. Therefore, using theoretical perspectives is useful to explain the process of change in the current study. Moreover, many previous studies explored the main reasons or causes for resistance to change in the management accounting process. It is essential not to ignore this issue in the current study.

The next chapter will provide a description of the theoretical framework used in this study to guide data collection and make sense of the research findings. The framework chosen for the

study is a new institutional sociology (NIS) perspective in order to provide detail explanation of MACS practices.

Chapter Four: Theoretical Framework

4.1 Introduction

The previous chapter provided an overview of the literature relevant to the study of the changes in management accounting and control systems (MACS). The purpose of this chapter is to discuss the theoretical framework adopted in the present study. This theoretical framework is based on the new institutional sociology (NIS) perspective to explain the nature and dynamics of the MACS in the studied companies. A theoretical framework is “*a structure that guides research by relying on a formal theory...constructed by using an established, coherent explanation of certain phenomena and relationships*” (Eisenhardt, 1991, p. 205). This chapter is structured as follows: Section 4.2 outlines and discusses the institutional theory framework and the sub - theories that are used in management accounting research. Section 4.3 defines the new institutional sociology (NIS) perspective and its assumptions. Therefore, the study draws on the new institutional sociology perspective as a theoretical framework to explain the nature and dynamics of the MACS in the Libyan companies. Isomorphism in management accounting is then discussed in Section 4.4. Section 4.5 outlines power and institutional theory. Section 4.6 discusses the main limitations of NIS. Section 4.7 outlines the research framework. A justification is subsequently provided in Section 4.8 for adopting NIS theory in this study. Section 4.9 concludes the chapter.

4.2 Institutional Theory

The literature has identified three main branches of institutional theory that are used in a number of disciplines including economics, sociology and politics (Scott, 2001; Moll *et al*, 2006). These sub - theories are: old institutional economics (OIE), new institutional economics (NIE) and new institutional sociology (NIS) (Burns and Scapens, 2000; Hussain and Hoque, 2002; Moll *et al*, 2006). In accounting research, theories are used to offer different insights into organizational phenomena, to increase knowledge and understanding about a phenomenon and to provide a logical and systematic framework for the analysis, understanding and development of organizational practices (Hoque, 2006).

Despite the differences between the three branches or approaches to institutional theory, they concentrate their concerns on institutional issues and the institutionalization process in organizations (Moll *et al*, 2006). Therefore, to understand institutional theory is to understand the definition of an institution and institutionalisation. The definition of '*institution*' depends on the particular approach of institutional theory that is utilized by the researcher in his / her study and, thus, there is no generally agreed definition of the term 'institution'. According to Huntington (1968), the term 'institution' can be defined as the governance structures of cultural elements such as norms, values, rules, systems, roles, behaviors and formal and informal procedures that form and define relations between individuals and the political, economic and social systems. However, the term '*institutionalization*' is utilized to refer to the process by which organizations and procedures gain values, legitimacy and stability in order to achieve their objectives in society (ibid).

As structures and mechanisms of social rules and norms, institutions are one of the main topics of study in the social sciences. In this regard, institutional theory is employed to investigate the processes by which rules, routines, norms and systems become established and adopted by organizations. In particular, OIE theory examines why and how particular rules, norms, behaviour or systems (such as management accounting systems or practices) exist, change or stabilize over time. It focuses on the role of rules, routines, habits and taken – for - granted ways to explain how things become re - utilized and ultimately taken – for - granted (institutionalized) in organizations over time. Furthermore, it emphasizes the role of a variety of influences such as power, politics, values and cognition for how systems and organizational practices evolve and are shaped over time (Burns and Scapens, 2000; Scapens, 2006).

However, NIE theory draws attention to institutions and considers them as rule - like, rational - choice and optimizing structures at both the societal and organizational level. It assumes that people are rational in their choice or decision making and choose structures that minimize transaction costs (optimizing structures) or maximize organizational value and equilibrium (Burns, 2010). In summary, NIE theory can give attention to the economic factors which help shape the structure of organizations and their management accounting systems. It can be useful in understanding certain aspects of the mish - mash of inter - related influences. That is through going inside the organization and studying how management accounting practices are shaped within the organization (Scapens, 2006). However, economic factors are only part of those influences (ibid). Therefore, it is NIS theory that can be helpful to see beyond economics to obtain a better understanding (ibid).

4.3 New Institutional Sociology (NIS) and Its Assumptions

The theoretical framework that is used in this study draws upon new institutional sociology perspective (NIS) (Meyer and Rowan, 1977, 1991; DiMaggio and Powell, 1983, 1991). This perspective is utilized as a framework to describe and explain the institutional pressures that influence Libyan state - owned manufacturing companies to adopt management accounting and control systems (MACS) or practices. In particular, it is used to provide answers to questions of whether: (i) Libyan state - owned manufacturing companies have adopted the same MACS and (ii) institutional pressures (factors) have similarly influenced the MACS of Libyan state - owned manufacturing companies. This section attempts to explain the new institutional sociology perspective of institutional theory.

New institutional sociology (NIS) emerged in the 1970s and 1980s from a group of researchers such as Meyer and Rowan (1977) and DiMaggio and Powell (1983). In the late 1990s, management accounting research had largely been founded on economic and organizational theories such as agency and contingency theories. Therefore, these studies have generally ignored how institutional and organizational pressures constrain accounting choice. The current study argues that NIS provides a better explanation for MACS changes in the companies under study than adopting a predominantly economic theory. NIS is concerned with institutions at the more macro level of organizational sectors. It discusses the pressures exerted by external regulatory and social actions on firms (Scott, 1987, 2001). NIS has its roots in Old Institutional Sociology (OIS) which is traced back to the work of Philip Selznick and Gouldner in the sociology of organizations (see Burrell and Morgan, 1979; Selznick, 1996; Roslender, 2013). Selznick (1948) recognized formal rules and processes as

being institutionalized within an organization and identified informal processes which, in turn, could become institutionalized through constant use. He also identified the influence on organizations of institutions in the broader social environment which he referred to as institutions of industry, politics, and education (Selznick, 1957; 1984). The establishment of policy by professionals or “elites” was seen as a determinant of routines set within an organization (Selznick, 1957; 1984).

Meyer and Rowan (1977) and DiMaggio and Powell (1983) utilized NIS to explain the adoption of new structures and practices by “institutionalized” organizations. It focuses on the environment of the organizations in terms of the influences of external factors on their structures and practices. In other words, it offers a useful framework for understanding the socio - economic, political and legal influences (factors) on both countries and firms and their strategic responses to those influences (Meyer and Rowan, 1977, 1991; DiMaggio and Powell, 1983, 1991; Hussain and Hoque, 2002). NIS theory views rules, regulations and norms at the societal level as defining what is best and expected in practice at the organizational level. Moll *et al* (2006) stated that these rules, regulations and norms in society define institution thus: *“It consists of cognitive, normative, and regulative structure and activities that provide stability and meaning to social behavior”* (p. 187).

NIS theory is used in management accounting research (for examples, see Chapter 3) to explain why organizations in particular fields appear to be similar (Scapens, 2006). In this respect, DiMaggio and Powell (1991, p. 8) describe the properties of NIS as follows:

“The new institutionalism in organizational theory and sociology comprises a rejection of rational-actor models, an interest in institutions as independent variables, a turn toward cognitive and cultural explanations, and an interest in

properties of supra individual unities of analysis that cannot be reduced to aggregations or direct consequences of individuals' attributes or motives”.

This conceptualization of NIS has been reaffirmed by Carpenter and Feroz (2001, p. 569) as:

“Institutional theory assumes that organizations adopt structures and management practices that are considered legitimate by other organizations in their fields, regardless of their actual usefulness. Legitimated structures or practices can be transmitted to organizations in a field through tradition (organization imprinting at founding), through imitation, by coercive, and normative pressures”.

The assumptions of NIS seek to explain the similarity among organizations which operate in similar environment, societal sectors or organizational fields (Scapens, 2006). These assumptions have a larger focus on external factors rather than internal organizational factors (Moll *et al*, 2006). Thus, new institutionalists believe that the external environment shapes the internal processes in an organization including management accounting systems. The basic ideas of NIS are the same as the OIE. They reject the idea that individuals are rational utility maximizers and they accept the importance of culture and society in their analysis (DiMaggio and Powell, 1991a). As such, they refuse the approach of methodological individualism. However, the definition of institutions within NIS is completely different from that of the OIE. Institutions in NIS terms consist of cognitive, normative, regulative structures and activities that provide stability and meaning to social behavior (DiMaggio and Powell, 1991; Scott, 2001). Nonetheless, there is no universal definition of institutions within OIE, but one commonly accepted definition is *“a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people”* (Hamilton, 1932, p. 84, cited in, Burns and Scapens, 2000; Hodgson, 2005; Moll *et al*, 2006; Yazdifar *et al*, 2008). These taken – for - granted assumptions shape the actions of individual actors (Burns and Scapens, 2000). However, “simultaneously, these taken – for - granted

assumptions are themselves the outcome of social actions, i.e., they are socially constructed” (2000, p. 36). In addition, another definition of institution is the “*structures, matrices of rules and procedures that give consistency and pattern to behavior*” (Adams, 1994, p. 338).

According to Burns and Scapens:

“Institutions can be regarded as imposing form and social coherence upon human activity, through the production and reproduction of settled habits of thought and action. However, institutions themselves evolve through a process of routinization of human activity” (2000, p. 6).

Barley and Tolbert (1997) define institutions as “*the shared taken – for - granted assumptions which identify categories of human actors and their appropriate activities and relationships*” (p. 96).

According to Moll *et al* (2006), NIS theory assumes that intra - organizational structures, policies, procedures and practices (for instance, management accounting practices) are largely shaped by external factors. Thus, most theorists in NIS theory argued that organizations adopt particular structures and practices not because they are rational choice, but because they are driven from external factors. Such adoption is therefore seen as the legitimacy of organizations. Institutional theorists argue that companies exist within a network of cultural components such as laws, values, beliefs and norms. These cultural components impact on companies to form their structures and practices according to these components. These cultural components refer to the external institutional context which comprises rules and requirements that are imposed on companies to comply and support these institutional rules if they want to obtain legitimacy and to secure the resources and continued societal support that are necessary for their survival. For that reason, institutionalized

organizations tend to employ structures and procedures that are valued in their social and cultural environment (Ribeiro and Scapens, 2006).

NIS is concerned with investigating the pressures exerted on the organization from its social and economic environment (DiMaggio and Powell, 1983, 1991; Carruthers, 1995; Hussain and Hoque, 2002). According to NIS, the elements of formal organization structure, policies and procedures mostly come from the wider social norms and expectations and myths about what forms acceptable social and economic practice (Meyer and Rowan, 1977, 1991; DiMaggio and Powell, 1983, 1991). According to Meyer and Rowan (1991), the elements of formal structures emanate from society; for instance, from the educational, professional, legal and other important components. These formal structures show the powerful societal rules that have been institutionalized and bind a particular firm. They suggested that the existence of institutionalized societal rules, which are followed by firms, results in similar formal structures between firms within the same field and each firm's formal structure is separate from the firm's actual work activities. But, the actual work activities may vary in the firm.

Carpenter and Feroz (2001) argued that successful organizations are those that get support and legitimacy by conforming to external social pressures. Nevertheless, Carpenter and Feroz (2001) referred to the process of adopting similar structures and practices as organizational imprinting, whereas Carruthers (1995, p. 315) argued that the institutionalization process is a *“cultural and political factor that concerns legitimacy and power much more than efficiency alone”*. If the societal anticipations concerning the legitimacy of organizations are not met, this might lead to withdrawal of support (Covaleski and Dirsmith, 1988; Deegan, 2002).

4.4 Isomorphism in Management Accounting

New institutionalists argue that organizations correspond to institutionalized structural forms and / or practice through the processes of isomorphism (Yazdifar and Tsamenyi, 2005). Thus, the definition of isomorphism is “*a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions*” (DiMaggio and Powell, 1983, p. 149). He also defined ‘isomorphism’ as “*the concept that best captures the process of homogenization*” (1991b, p. 66). According to Meyer and Rowan (1991, p. 47), organizations are “*structured by phenomena in their environments and tend to become isomorphic with them*” emphasizing the issue of legitimacy. DiMaggio and Powell (1983, 1991) identified two main dimensions of isomorphism, namely; (i) institutional isomorphism and (ii) competitive isomorphism (see also, Carruthers, 1995).

4.4.1 Institutional Isomorphism

Institutional isomorphism stems from competition for political and organizational legitimacy. DiMaggio and Powell (1983, 1991b) suggested that there are three mechanisms of institutional isomorphism (isomorphic pressures) in which change can occur. These mechanisms are coercive, mimetic and normative pressures which operate in the institutional environment. Isomorphic pressures explain why organizations adopt similar structures and practices such as management accounting practices (ibid). According to Granlund and Lukka (1998), institutional isomorphism has two dimensions which are called *convergence* and *divergence* factors (see Table 4.1 for more details). The following subsections will give some details about these types of isomorphism.

Table (4.1): Drivers of Convergence and Divergence of Management Accounting Practices

Economic pressures	Coercive pressures	Normative pressures	Mimetic pressures
<p><i>Factors driving convergence</i></p> <p>Global economic fluctuations/ recessions deregulation of markets.</p> <p>Increased competition (globalization of markets).</p> <p>Advanced production technology (e.g. JIT).</p> <p>Advanced information technology (e.g. integrated systems such as SAP R/3, ABC-software packages, expert systems, and internet).</p>	<p><i>Factors driving convergence</i></p> <p>Transactional legislation (e.g. European Union).</p> <p>Transactional trade agreement (e.g. WTO, NAFTA, GATT, APEC).</p> <p>Harmonization of the financial accounting legislation.</p> <p>Transactional' (especially global firms) influence on their subsidiaries.</p> <p>Headquarters influence in general.</p>	<p><i>Factors driving convergence</i></p> <p>Management accountants' professionalization (networking, etc.).</p> <p>University research and teaching.</p>	<p><i>Factors driving convergence</i></p> <p>Limitation of leading companies' practice (benchmarking).</p> <p>International / global consultancy industry.</p>
	<p><i>Factors driving divergence</i></p> <p>National legislation.</p> <p>National institutions/ regulation (labour union, financial institutions, etc.).</p>	<p><i>Factors driving divergence</i></p> <p>National culture.</p> <p>Corporate cultures.</p>	

Taken from; Granlund and Lukka (1998, p. 157).

4.4.1.1 Coercive Isomorphism

According to DiMaggio and Powell (1983), coercive isomorphism arises from both formal and informal pressures exerted on an organization by other institutions upon which the organization is dependent or by societal expectations in the society within which organizations operate (e.g. the government's laws and regulations, socio - economic and political influence, supplier relationships, investors and other stakeholders). They also argue that coercive isomorphism "stems from political influence and the problem of legitimacy" (1983, p. 150). Thus, these external factors drive organizations to adopt particular internal structures and processes (Moll *et al*, 2006). According to Mizruchi and Fein (1999, p. 657):

"Coercive isomorphism is driven by two forces: pressures from other organizations on which a focal organization is dependent and an organization's pressure to conform to the cultural expectations of the larger society. Coercive isomorphism, at least in the first instance, is thus analogous to formulations of the resource dependence model, in which organizations are viewed as constrained by those on whom they depend for resources".

DiMaggio and Powell (1983) presented specific examples of coercive isomorphism. For instance, manufacturers may employ new pollution control technologies to adapt to environmental regulations. Moreover, non - profit companies may maintain accounts and hire accountants in order to meet tax law requirements. Moreover, Granlund and Lukka (1998) and Hussain and Hoque (2002) point out that socioeconomic - political institutions (e.g. the United Nations, the World Trade Organization and the International Standards Organization) exert pressures on organizations to change their systems such as performance measurement practices (PMS). Hussain and Hoque (2002) also contend that accounting standards and financial legislations are amongst the coercive pressures that may affect the design and use of a PMS in organizations such as banks. They stated that "banks are required

to work within the principles and guidelines of the central bank as a kind of regulatory control. Therefore, the influence of the central bank on non - financial performance (NFP) measurement in the banks is likely” (2002, p. 166).

According to Yazdifar (2004), the NIS concept of coercive isomorphism and management accounting change can be conceived as a consequence of change in external factors which affect the organizational level in privatized companies.

4.4.1.2 Mimetic Isomorphism

Mimetic isomorphism stems from the pressures that organizations face to adopt similar procedures and practices of other organizations which are seen to be more legitimate and successful organizations, especially those in the same field (Moll *et al*, 2006). Organizations attempt to change their internal structures and practices to imitate those adopted by other organizations (ibid). This kind of isomorphism pressure is the result of “standard responses to uncertainty” (DiMaggio and Powell, 1983, p. 151). They confirm that an uncertain environment is also a strong force which encourages imitation. With more explanation, when the environment is uncertain, when organizational structures and practices or systems are not fully understood and / or when an organization’s objectives are ambiguous, organizations are more likely to follow the policies, rules and practices of other successful organizations in the same field (see, DiMaggio and Powell, 1983, 1991a; Carruthers, 1995; Siti-Nabiha and Scapens, 2005; Ribeiro and Scapens, 2006; Yazdifar *et al*, 2008).

According to Abernethy and Chua (1996), mimetic isomorphism originates when there is uncertainty in organization life, such that when organizations are not sure about how to

behave, they imitate behaviour from other organizations. DiMaggio and Powell (1983, p. 152) note that “*Organizations tend to model themselves after similar organizations in their field that they perceive to be more legitimate or successful*”. Palmer *et al* (1993) elaborated this view. They state that

[i]nstitutional theory assumes that organizations will select among alternative structures [or practices] on the basis of efficiency considerations, primarily at the time that their organization field are being founded or recognized. Subsequently they adopt forms that are considered legitimate by other organizations in their field, regardless of these structures’ [or practices]’ actual efficiency (p. 104).

Thus, uncertainty can be an influential force that motivates organizations to emulate or copy the actions of those organizations that are seen to be more legitimate or successful in their organizational field (Carpenter and Feroz, 2001, p. 571). Another example for copying the best practices from others, Fitzgerald *et al* (1991), cited in Hussain and Hoque (2002), describe the significance of linking organizational design, structure and strategy with controls in which performance measurement systems (PMSs) become increasingly important. Where management is incapable of implementing and using PMSs due to inability to link strategy to operational activities, it often tends to emulate or follow in public the best practice PMSs from other successful organizations (O’Neill *et al*, 1998, cited in Hussain and Hoque, 2002, p. 165). Such a copying tendency arises from a desire to obtain legitimacy for the operating environments, although the relationship of PMSs with strategy and performance can still be absent (*ibid*).

DiMaggio and Powell (1983, 1991b) maintain that the similarities of official structures between companies are due to the limited range of existing choices. For instance, large companies employ the services of a small set of major consulting companies, which spread a

few organizational models to several companies (ibid). Granlund and Lukka (1998) argue that the international consulting industry has further reinforced similarities in management accounting practices. Even though the advice of consultants within the same consulting companies may vary in different countries according to the operational context, they seem to promote the same standard solutions.

4.4.1.3 Normative Isomorphism

The third concept of institutional isomorphism is normative and suggests that a primary source of organizational changes (including management accounting change) stems due to 'professionalization' through professional training, certification or accreditation (DiMaggio and Powell, 1991b, p. 66). Membership of professional organizations, formal education and legitimacy in the knowledge base provided by university specialists are sources of normative isomorphism (DiMaggio and Powell, 1983, 1991b). Such professional organizations may influence organizations to adopt particular structures and practices or change in the existing management accounting practices (MAPs). DiMaggio and Powell also suggest that normative isomorphism is encouraged through the process of filtering personnel. For instance, hiring staff from the same industry or hiring top executives with certain background, state, from the legal or finance department. Hussain and Hoque (2002) point out that there are four potential normative influences on the design and use of non - financial performance (NFP) measurement practices in Japanese banks as following: (i) professionals; (ii) organizational strategic orientation (e.g. organization's vision, mission and strategies); (iii) top management / corporate culture and (iv) organizational characteristics (e.g. size and nature or type of business).

According to Abernethy and Chua (1996), normative isomorphism arises “*when professionals operating in organizations are subject to pressures to conform to a set of norms and rules developed by occupational / professional groups*” (p. 574). Education, experience and participation in professional networks have an effect on how professional people perform their activities within the organization (Carruthers, 1995). In addition, normative isomorphism can emanate from the need to maintain cultural support. Meyer and Scott (1983) claim that institutional legitimacy refers to the degree of cultural support for an organization, that is, the extent to which the array of established cultural accounts provides clarifications for its existence, functions and jurisdiction and lack of alternatives. They also pointed out that “*[i]nstitutional legitimacy is derived from the wider institutional environment, not from the local bureaucrats who may employ their own unique interpretations of proper procedure*” (Meyer and Scott, 1983, p. 6).

4.4.2 Competitive Isomorphism

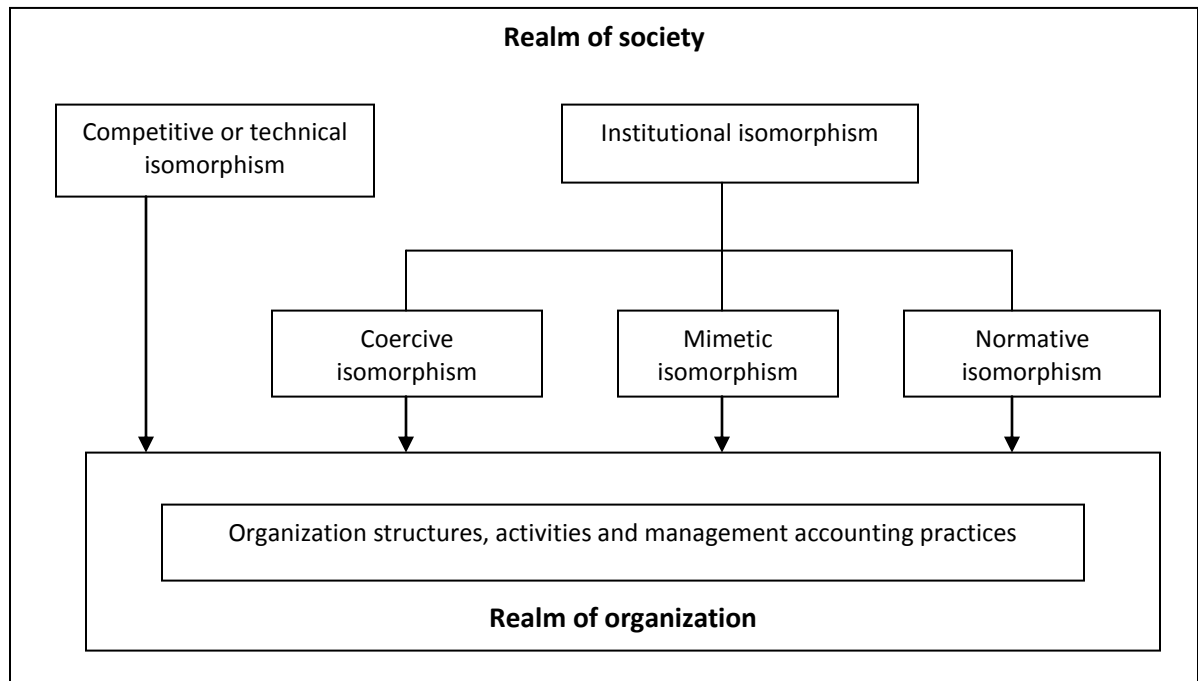
Competitive isomorphism results from market pressures which focus on how competitive factors lead companies towards adopting least – cost and efficient structures and practices (Moll *et al*, 2006). According to Carruthers (1995, p. 317), “*[c]ompetitive isomorphism concerns efficiency. When there is one best, cheapest or most efficient way to do things, then the forces of competition will eventually impose upon organizations that one best way*”. Nonetheless, DiMaggio and Powell (1983, 1991b) argue that competitive isomorphism does not offer a fully sufficient representation of the modern organizations. Thus, the concept of institutional isomorphism is a useful mechanism for understanding the politics and ceremony that include much contemporary organizational life (ibid).

In the earlier work of DiMaggio and Powell (1983), institutional isomorphism and competitive isomorphism were separated. The focus was more on institutional isomorphism than competitive isomorphism. DiMaggio and Powell (1983) downplayed the role of market forces in shaping organizational practices. However, since that time, many studies are now paying more attention to the role of market forces in shaping organizational practices (such as management accounting practices) (see for example, Scott, 1991; Powell, 1991; Oliver, 1992; Greenwood and Hinings, 2006). For instance, Powell (1991) argued that institutional and market forces may not be separated and distinguished as proposed in the previous work of DiMaggio and Powell (1983). Consequently, organizations may be able to design structures to comply with institutionalized rules while at the same time accomplish technical efficiency (Hussain and Hoque, 2002; Tsamenyi *et al*, 2006). Nevertheless, other previous studies suggested that there might be some potential conflict between institutional and market pressures. Therefore, it might be difficult for a company to design structures to gain legitimacy (institutional forces), and at the same time achieve efficiency (market forces) (see for example, Oliver, 1992; Hoque and Hopper, 1997).

Carruthers (1995, p. 318) suggested that competitive (or technical) isomorphism applies more to “for – profit” organizations, while institutional isomorphism applies more to processes of isomorphism in “not – for – profit” organizations. Notwithstanding this distinction, it will not be elaborated any further in this thesis.

Accordingly, Yazdifer (2004, p. 121) introduced the summary of the mechanisms of management accounting change, as is shown in Figure (4.1) below.

Figure 4.1: Drivers of Homogeneity in Organizational Forms and Practices: NIS view



Taken from: Yazdifer (2004, p. 121).

In sum, NIS theory is utilized to investigate why and how organizational structures and practices are homogenous or heterogeneous among organizations and what external institutional pressures (factors) make organizations similar in the same field, why and how organizations adopt or design their practices in order to conform to society - level regulations and expectations or to obtain legitimacy from the external environment (DiMaggio and Powell, 1983, 1991b; Scott, 2001; Scapens, 2006). It is also utilized to explain how some organizations might decouple between what they are anticipated to carry out and what they actually do in practice (actual institutional practices) (Fogarty, 1996; Moll *et al*, 2006).

4.5 Power and Institutional Theory

The role of power in shaping organizational practices, and for that matter management accounting practices, has been recognized in the literature (cf. Collier, 2001; Tsamenyi, 2006). The definition of power is “*the ability to get others to do what you want them to do*” (Dugger and Sherman, 1994, p. 103). It is also the capacity to influence the behaviour of others (Wilkinson, 1999). Dugger and Shaerman (1994) pointed out that power relationships might be the most important relationships in an organization. In this respect, OIE has focused on the power within the organizational realm (intra - organizational power relationships), whilst NIS has focused on the power as pressures that arise from an exogenous environment.

4.5.1 Power and Political Factors

The importance of power and politics in organizational change has been widely discussed in the literature. Power is an important factor in shaping the ongoing processes in organizational life (Yazdifar, 2004). Furthermore, power is regarded as pressures that are practiced in organizations by environmental influences (ibid). Yazdifar (2004) argues that there are some differences between power and authority. According to Dugger and Sherman (1994), power relationships are the most important relationships in society. Therefore, it is essential to discuss the concept of power and its relationships to authority and politics.

It is not easy to distinguish between the definition of power and politics (Yazdifar, 2004). In organizational terms, authority is the right to do something, or command others to act, toward the achievement of organizational objectives (Burnes, 2004). The right to act is given legitimacy by the authority figure’s position in the organization (ibid). According to Giddens (1984), the concept of power is divided into power to do and power over others. Thus, even

though superiors with authority are likely to be those that possess power in an organization; subordinates can also possess some amount of power (ibid). According to Pfeffer (1981), the most evident form of authority within an organization is the relationship between supervisors and subordinates.

Politics describes the efforts of people in organizations to get support for or against policies, rules, targets or other decisions where the results will have some influence on them (Burnes, 2004). Politics is seen as the exercise of power (Pfeffer, 1981), while power is the ability to affect decisions (Burnes, 2004). According to Collier (2001), power does not usually imply conflict but, sometimes, it indicates conflict when there is disagreement in the interests. It is important to differentiate between the two kinds of power, as elaborated above, which can be utilized to concentrate on the use of accounting as both an enabling device and as a tool to achieve control (Scapens and Rebots, 1993).

In sum, organizational politics is seen as power in action. Therefore, power is the actual capacity to affect the behaviour of others in order to accomplish an organization's objectives, to change events in such an organization, to overcome resistance of change and to impose decisions. On the other hand, authority is the right to the issuance of commands not only for achieving certain objectives, but also to adopting certain organizational change in order to adapt to the environment.

4.5.2 Power in NIS

NIS theory has focused on power as the pressures that arise from external environment. It has neglected the issues of power and interest at the micro - level (Abernethy and Chua, 1996; Yazdifar *et al*, 2008). DiMaggio and Powell (1991a, p. 27) point out that it is essential

“to place interests and power on institutional agenda”. NIS also has concentrated on convergent change involving outcomes of the diffusion of new practices (Granlund and Lukka, 1998).

DiMaggio and Powell (1983) described three isomorphic processes: coercive, mimetic and normative. Mizruchi and Fein (1999) stated that *“mimetic isomorphism has attracted the most attention”* (p. 657). However, coercive isomorphism reflects the concept of power, but from a different standpoint. In other words, coercive isomorphism embedded the concept of power that originates from external environment, while NIS ignores the interaction that happens within organizations. On the contrary, OIE focused on the intra - organizational power. As a result, *“the focus of neo - institutional theory is now shifting from the study of fields as relatively static and predictable units of analysis to the study of fields as arenas of power dependencies and strategic interactions”* (Hensmans, 2003, p. 356). This development in neo - institutional theory is taken into consideration in the current study.

4.5.3 Power in OIE

The relationship between power and OIE is complicated. In this regard, OIE theory can analyze this complex situation within organizations and also explain conflict and power (Yazdifar *et al*, 2008). DiMaggio and Powell (1991a, p. 12) argue that OIE theory *“was straightforwardly political in its analysis of group conflict....emphasizing the vesting of interests within organizations as a result of political tradeoffs and alliance”*. Burns (2000, p. 571) mentions that power and politics are essential *“to any OIE - grounded explanation of life’s ongoing processes”*. In addition, Covalleski *et al* (2003) focus on how rules and routines support power relationships by providing the power to define the norms and

standards that shape the organizational behavior and the power to define appropriate forms of structure and policy that run unquestioned over time.

Hardy (1996) observes the power embedded deep within the organizational culture that organizational members take for granted. She states that power is often beyond the reach of tampering by organizational members. *“It lies in the unconscious acceptance of the values, traditions, cultures and structures of a given institution and it captures all organizational members in its web”* (p. S8). Hardy (1996) also identifies three dimensions of power: the power of resources, the power of processes and the power of meaning. These three dimensions of power are shown in Table (4.2) below.

Table 4.2: The Three Dimensions of Power

	Power of Resources	Power of Processes	Power of Meaning
Source of Power	Ability to hire and fire, rewards, punishment, funding, authority, expertise.	Decision-making processes, participation and agenda, etc.	Symbols, rituals, language, etc.
Action of Power	Principles of behavior modifications are used to influence specific actions.	New awareness is created by opening up processes to new participants, issues and agendas.	Change is new meaning making it appear legitimate, desirable, rational or inevitable.
Limits to Power	Continual use of ‘carrot’ or ‘stick’ is required to ensure continued change, repeated use of the ‘stick’ may be counter-productive.	New awareness helps sustain new behavior as long as it remains within existing values and norms.	Change in some underlying values and norms may be possible but specific change in behavior will be difficult to effect.

Adapted from Hardy (1996, p. S7).

The *power of resources* is exercised by actors to influence the decision outcomes and achieve the desired behaviour through the deployment and / or restriction of resources (Hardy, 1996). This kind of power can be derived from the ability to hire and fire, rewards, punishments, funding, authority, expertise, etc. Furthermore, this kind of power works to modify the individual's behaviour. Therefore, it tends to be utilized in relation to specific task - oriented settings and often uses carrot and stick to secure the desired behaviour (ibid). On the other hand, the *power of processes* can be derived from the decision - making process, participation and agendas, etc (Hardy, 1996). The influence of this form of power is exercised on the participation of subordinates in the decision - making process. Generally, this type of power resides in the processes of decision - making that integrate a variety of rules and routines that can be implemented by top management to influence the outcomes of decision (Hardy, 1996). The *power of meaning*, on the other hand, can be derived from symbols, rituals, language, etc (Hardy, 1996). This dimension of power can be used to form cognition, perceptions and preference, so that individuals accept the status quo because they cannot imagine alternatives. Power over meaning can be utilized to prevent organizational conflicts from emerging in the first place (Hardy, 1996). Interest groups commence their applications and do not begin requests of others through the administration of meanings (ibid).

Moreover, the NIS analysis identifies that power has both positive and negative dimensions (Giddens, 1984; Macintosh, 1990). The positive dimension of power enables people to carry out things. For example, it can be used to introduce new MACS or practices, whereas the negative dimension is likely to create conflicts; for instance, it may be employed to resist

adopting new practices (Hardy, 1996; Burns, 2000). Prior management accounting studies (such as Collier, 2001; Tsamenyi *et al*, 2006) have all applied the positive and negative conceptions of power to investigate the design and use of management accounting systems.

4.6 The Main Limitations of NIS

This section deals with some limitations and criticisms of NIS theory:

- 1) Meyer and Rowan (1977) have identified several limitations of institutional theory. For instance, the theory was not able to explain the difference between the perceived formal organizational structure and the actual operating structure. Furthermore, it was not able to provide relevant explanations for how organizations deal with conflicting pressures from multiple sources; they could not imitate or conform to all these pressures. Finally, the theory did not explain how organizations respond to highly generalized pressures.
- 2) There are also two shortcomings in using NIS to study change in management accounting and the resistance to such change. First is the incapacity at an institutional level to recognize sufficiently the disparities within the institutional environment, the relative power of different institutional actors and the resistance to change which results from differential power. Second is the inability of analysis at an organizational level to provide a theory as to how these competing interests can be accommodated or reconciled by management through loose coupling (Collier, 1999, p. 9).

- 3) Lack of consideration of internal generation of institutionalized forms. Scott (1991) claims that the focus of theory is on “examining the effects of institutional environments on organizational structures rather than with examining the internal generation of institutionalized forms within organizations” (p. 165).
- 4) Incapacity to explain the processes of organizational change. Greenwood and Hinings (1996) argue that institutional theory is not usually considered as a theory of organizational change, but often as an explanation of the similarity (isomorphism) and stability of organizational arrangements in a given field of organizations. They also argue that the theory “is weak in analyzing the internal dynamics of organizational change. As a consequence, the theory is silent on why some organizations adopt radical change whereas others do not, despite experiencing the same institutional pressures” (1996, p. 1023).
- 5) Lack of consideration of efficiency pressures and economic environment. NIS theorists are criticized as being concentrated on non - profit companies. NIS theory often dichotomizes between public and private sector companies. NIS theorists argue that public companies are subject to institutional pressures, whereas private companies are shaped by market forces. Therefore, NIS researchers have been able to neglect the implications of economic pressures by assuming that institutional and market pressures are mutually exclusive and each set of pressures is restricted to particular companies (see Scott, 1991; Carruthers, 1995; Major and Hopper, 2002).

- 6) Yazdifar *et al* (2008) recognized some criticisms of NIS as follows. First, NIS is criticized for its concentration on the role of active agencies and issues of power and interest at the macro - level. Second, the assumption that practices designed to secure external legitimacy are only symbolic and always avoid internal operating systems (see also Abernethy and Chua, 1996). Third, NIS considers the change at an extra - organizational level; it does not focus on the change at intra - organizational level.

However, some studies in management accounting (see for example, Abernathy and Chua, 1996; Collier, 2001; Dillard *et al*, 2004; Tsamenyi *et al*, 2006, Mohammed, 2010) have addressed some of the limitations of NIS. As a result, institutionalization is not only seen as arising out of pressures from an organization's external environment, but also from the actions of organizational actors. Collier (2001, p. 468) stated that "accounting is implicitly involved in relations of power within the institution - organization environment".

In addition, Lounsbury (2008) pointed out that it is not in favor of institutional researchers to de - emphasize the rationality of organizations in adopting management accounting practices. He argues that there is a need for institutional researchers to broaden their analysis to focus upon rational choice as opposed to assumption in institutionalism that organizations adopt practices mainly for legitimacy purposes (*ibid*). He also observed that "by focusing more on actors and organizational heterogeneity, institutionally - oriented theorists may seek fruitful connections to currently fashionable domains such as practice theory that have been influential in contemporary studies of accounting and related contexts" (2008, p. 351).

Accordingly, some of the limitations of NIS identified above will be addressed in this study by incorporating intra - organizational power relations and market forces in the NIS analysis (see Collier, 2001; Tsamenyi, *et al*, 2006). Therefore, this thesis will focus on the power relations between managers in the Libyan manufacturing companies in order to understand the extent to which power facilitates or impedes the uses of MACS in these companies. Moreover, the influence of other internal and external factors on an organization will be taken into consideration in this study.

4.7 A Framework for the Study of MACS

This study focuses upon change in management accounting and control systems (MACS) in Two Libyan state - owned manufacturing companies. Therefore, it examines how and why MACS design and operate in the environment of Libyan companies. This section provides a framework for understanding the processes and context of MACS. The framework draws on insights from strands of NIS perspectives of management accounting to offer an explanation of the interaction among organizational context and behaviour. The NIS perspective was chosen as it is, based on evidence in previous research, and considered to be a useful tool as it provides a theoretical framework for achieving a richer understanding of the phenomena being studied from its wider context (DiMaggio and Powell, 1983, 1991; Greenwood and Hinings, 1996; Burns, 2000; Burns and Scapens, 2000; Carpenter and Feroz, 2001; Hussain and Hoque, 2002). Figure (4.2) below illustrates the theoretical framework for the present study.

Figure 4.2: The Theoretical Framework of the Study

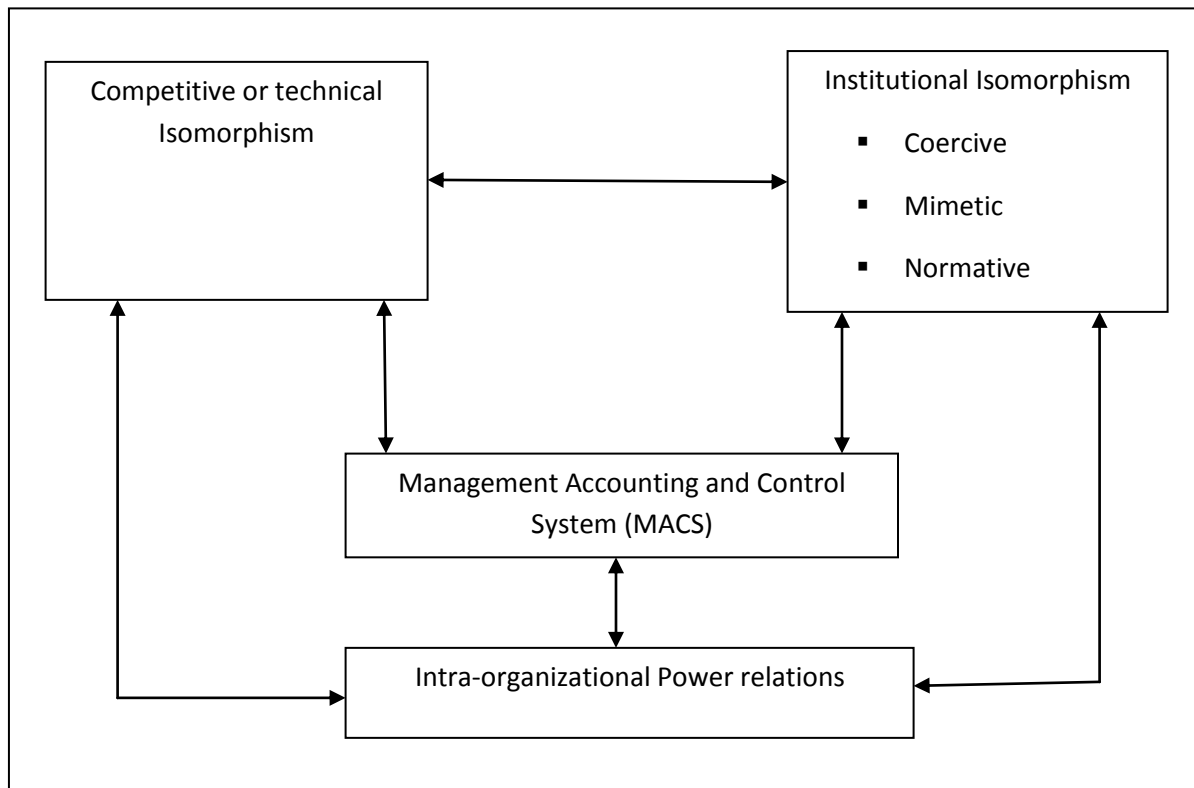


Figure (4.2) above shows that the theoretical framework draws on the argument that how MACS work in any particular organization is influenced by the institutional environment, market forces and intra-organizational power relations. The framework recognizes that there is a dynamic relationship among these three factors (cf. Collier, 2001; Tsamenyi *et al*, 2006). For instance, the different kinds of institutional isomorphism (coercive, mimetic and normative) are influenced by both market competition and intra - organizational power relations. At the same time, market competition and power relations are shaped by the institutional factors. In addition, there is a dynamic relationship between power relations and market pressures. This assumption of a dynamic relationship would also contribute to our understanding of how MACS change over time. These relationships between institutions,

markets and power are likely to be static, but, instead, evolve over time. The theoretical framework is later adopted in the present study to interpret the role of the MACS in the studied companies (see Chapter 8).

4.8 Justifications for Adopting Institutional Theory

Many theories have been utilized to explain the differences in the formal structures of organizations that are used to coordinate and control their members. Two of the most prominent theories are *contingency theory* and *institutional theory*. They take almost opposite approaches to understanding the factors that lead to the development of different formal structures. Geiger and Ittner (1996) state that contingency and institutional theories can explain the design and use of management control systems in organizations. While contingency theory has dominated management accounting research in the 1980s (e.g., Otley, 1980; Ginzberg, 1980; Jones, 1985), the 1990s and the 2000s experienced a shift towards the usage of institutional theory in management accounting research (e.g., Covaleski *et al*, 1996; Burns and Scapens, 2000; Collier, 2001; Tsamenyi *et al*, 2006).

Contingency theory has been criticized by researchers since its introduction into the management accounting literature. Cooper (1981) noted that contingency theory has an objectivist approach that ignores the cognition, culture and symbols which are important components for an understanding of organizations. It also ignores the fact that organizations may develop complex rationalities and rationalizations for their actions, particularly when they are interacting with a rapidly changing environment (ibid). Otley (1978, 1980) claims that contingency theory views management control systems as passive techniques designed to help a manager's decision making and therefore ignoring how individuals influence

organizational strategy. It also ignores the socio - political aspects of organizational life and how these impacting on organizational practices (ibid). Furthermore, the contingency theory approach stems from organizational theory. It typically adopts a positivistic methodology and thus pays less attention to the subjective dimensions of change (Donaldson, 1987). As mentioned earlier in Section 3.7.6, the notion of contingency theory is based on the hypothesis that there is no generally appropriate system of accounting, management or control that can be applied equally to all organizations in all situations and there may be a match between factors specific to the organization and the design of the organization's management accounting and control system (see for example, Gordon and Miller, 1976; Waterhouse and Tiessen, 1978; Otely, 1980; Jones, 1985). Rather, it attempts to identify specific characteristics of an accounting system which are associated with certain external and internal factors surrounding organizations such as environment, technology, organizational structure, age, size and power (Otley, 1980; Haldma and Laats, 2002; Chenhall, 2003).

However, institutional theory adds the social and political elements which are usually absent or a little emphasized on the rational instrumental approach such as contingency theory. Many researchers have discussed the significance of politics in relation to organizational change (see for example, Alam, 1997; Buchanan and Badham, 1999). They argued that politics can play a key role in shaping organizational processes. According to Oliver (1997), institutional theory assumes that individuals are “motivated to comply with external social pressures”. From an institutional perspective, management accounting systems could be constructed as being shaped by organizational actors and the broader institutional environment. Therefore, management accounting practices should be interpreted in the

context of the behaviour of individuals and groups within the organization. NIS theory can therefore offer wide understanding of accounting choices and behaviour (Scapens, 1994).

Many previous studies in management accounting have widely used NIS as a theoretical framework for exploring various accounting issues in both the public and private sectors in many countries. These studies have concentrated on issues such as how the adoption of accounting systems is shaped by different isomorphic pressures (Carpenter and Feroz, 2001; Hussain and Hoque, 2002), the interaction between institutional and technical environments (cf. Hoque and Hopper, 1997; Hussain and Hoque, 2002; Tsamenyi *et al*, 2006) and the role of power and agency in the design and use of organizational accounting systems (cf. Collier, 2001; Tsamenyi *et al*, 2006).

In the current study, the researcher has chosen a case study approach as qualitative method for collecting data from two Libyan state - owned manufacturing companies, namely, the TBC and the NTC. Thus, new institutional sociology theory is a more appropriate approach to the present study. In addition, Libyan organizations operate in an uncertain environment and external influences such as economic, social, legal and political factors all play an important role in Libyan society. Such factors, therefore, are also likely to be important to the management accounting practices (MAPs) of Libyan state - owned manufacturing companies. According to Tsamenyi *et al* (2006), *“NIS is particularly relevant for analyzing organizations that are confronted with uncertainties and, as a result, compete for political and institutional legitimacy and market position”*(p. 410).

In this regard, institutional theory has been utilized to investigate a number of issues. For instance, it has been used to provide explanations of: (i) why management accounting change

has taken place in the Libyan state - owned manufacturing companies and (ii) how companies understand and respond to changing social and institutional pressures and expectations. Accordingly, NIS theory is an appropriate theoretical framework in such context and is appropriate for the objectives of this study in investigating the external and internal influences that impact on Libyan state - owned manufacturing companies to adopt MAPs.

Furthermore, although other theories such as structuration theory and actor net - network theory (ANT) can be utilized in research on change in management accounting, they have been considered less suitable for the purposes of this thesis for a number of reasons. First, the nature of the research questions posed in this study focus mostly on the processes of isomorphism in management accounting. These types of isomorphism in NIS perspective are institutional isomorphism and competitive isomorphism (see Section 4.4 for more details). Therefore, the present study focuses on the macro - level of an organization according to NIS perspective. Second, structuration theory, for the most part, is possibly more suited to macro - or meso - level studies of organizations and / or management accounting (see Section 3.7.2 of Chapter 3). Thus, it is perhaps more suited to studies of accounting systems as a whole (see for example, Roberts and Scapens, 1985; Macintosh and Scapens, 1990; Scapens and Roberts, 1993). Third, ANT includes actants such as human and inanimate actors (e.g. computer software and machines) (see Section 3.7.9 of Chapter 3). Thus, it is not adopted in this thesis due to the emphasis of the present study on the institutional pressures mentioned above.

4.9 Summary

This chapter outlines the main perspectives of NIS theory that is utilized as the theoretical framework in this study. This chapter has reviewed an overview of the institutional theory and its sub - theories. In particular, a NIS framework of institutional theory, including institutional pressures is presented. These external institutional pressures include three different types of institutional pressures, namely, coercive, normative and mimetic pressures which can shape structures and practices of organizations. These organizations may respond to these institutional pressures by adopting compliance with regulations. Alternatively, they may adopt a manipulative strategy in order to gain legitimacy and therefore secure the resources on which they depend. In addition, the argument in the chapter suggests that NIS analysis needs to be extended to include issues on intra - organizational power relations and market competition. This argument is consonant with the recent developments in institutional theory. Such an analysis will also contribute calls by Lounsbury (2008) to focus upon rationality and instability in institutional analysis. The extended NIS framework is presented in the chapter to provide the opportunity for analyzing the influence of both external and internal factors on an organization (see DiMaggio and Powell, 1991; Greenwood and Hinings, 1996; Hussain and Hoque, 2002; Carpenter and Feroz, 2001). For example, by incorporating the notion of power, the analysis identifies how MACS are shaped by the behaviours, norms, values and beliefs held by a particular organization. Meyer and Rowan (1977) suggested that the design of the management control system and its influence over the behaviors of organizational actors determined the norms, beliefs and norms held by a particular organization.

The present study adopts a NIS theoretical framework to explore and explain the different types of institutional pressures that have shaped the current MACS or practices in the Libyan state - owned manufacturing companies mentioned above and to explore whether they all have the same practices or there are any institutional differences. This is achieved by investigating the perception of employees or individuals at different managerial levels of the two Libyan state -owned manufacturing companies.

Having presented the theoretical framework in this chapter, the next chapter will discuss the research methodology and methods adopted in conducting the study.

Chapter Five: Research Methodology and Methods

5.1 Introduction

Chapter Two discussed the Libyan business environment about which the current study is undertaken. Chapter Three provided a detailed discussion of the main literature driving this thesis, while the theoretical framework to be employed was outlined in Chapter four. This chapter makes clear the research methodology and methods underpinning the study. This Chapter is organized as follows: Section 5.2 discusses general core philosophical assumptions that guide any academic research project. Much of this section concentrates on the frameworks set up by Burrell and Morgan (1979) but consideration is also afforded to the frameworks suggested by Laughlin (1995) and Chua (1986). Section 5.3 outlines philosophical assumptions of the researcher when approaching this research study in light of the research questions outlined in Chapter one. The ontological and epistemological assumption of the researcher supports the choice of a primarily qualitative and interpretive methodological approach in the current study. Section 5.4 discusses the research methods used in this study for data collection and explains how they reflect the new institutional sociology perspective. Section 5.5 explains access to data. Section 5.6 outlines the process of conducting and analyzing data. Section 5.7 concludes the chapter.

5.2 Philosophical Assumptions

This section provides an overview of the various philosophical assumptions that underpin any research study. According to Burrell and Morgan's (1979) framework, philosophical assumptions can be built in relation to two dimensions reflecting standpoints about the nature

of social sciences and the nature of society. In this regard, the current study is based on the model developed by Laughlin (1995).

5.2.1 Assumptions Regarding the Nature of Social Science

Burrell and Morgan (1979) described two distinct research philosophies (the subjective - objective dimension of social sciences) based on four philosophical assumptions related to the nature of social sciences: (1) ontology, (2) epistemology, (3) human nature and (4) methodology. Each of these assumptions reflects two philosophical positions concerning their two research philosophies (objectivism or subjectivism orientations to social sciences). In addition, each of these assumptions can vary depending on the position which the researcher adopts. Burrell and Morgan (1979) also argue that these assumptions have direct implications on the research methodology chosen in a special study as well as the way in which investigations are conducted and how knowledge regarding the social world is obtained.

Ontological assumptions consider the nature of reality. Is the phenomena studied part of a concrete and external reality that is independent of human cognition (*realist*)? Or is the external social world only a product of individual subjectivism (*nominalism*) (Chua, 1984; Hopper and Powell, 1985; Guba and Lincoln, 1994)? The notion of ontology not only relates to the nature of reality or “the study of being” as defined by Crotty (1998, p. 10) but it is also concerned with understanding ‘what is’, with the nature of existence, and the structure of reality as such.

Epistemology assumptions consider the nature of knowledge and the basis of evidence that forms knowledge (Hopper and Powell, 1985). In other words, epistemology is concerned

with “how one might begin to understand the world and communicate this as knowledge” to others (Burrell and Morgan, 1979, p. 1). Epistemology, according to Crotty (1998, p. 3), is “*the theory of knowledge embedded in the theoretical perspective and thereby in the methodology*”. Epistemology is divided into two positions of knowledge. At one extreme, researchers contend that knowledge exists independently of any consciousness and that it can only be derived from empirical observation of social reality (*the objectivist position-positivism*). At the other extreme, position considers that the social world is fundamentally relative whereby knowledge is something based on personal investigation, experience and the perspective of individuals who are directly involved in the activities under study (*the subjectivist position- Anti-positivism*) (Burrell and Morgan, 1979; Chua, 1984; Hopper and Powell, 1985).

Assumptions about *human nature* are concerned with the relationship between individuals and their environment (Burrell and Morgan, 1979). The two major perspectives underpinning this notion are determinism and voluntarism. On one hand, the *determinism perspective* assumes that human beings and their activities are “products of their environment” that are completely determined and constrained by their external environment (Burrell and Morgan, 1979, p. 2). On the other hand, the *voluntarism perspective* is based on the view that humans or individuals are completely autonomous and free - willed in creating their own environment (Burrell and Morgan, 1979; Hopper and Powell, 1985).

The notion of *methodology assumptions* is concerned with how the researcher obtains knowledge about the world. Critically, the methodology utilized by a researcher is influenced by his / her ontological and epistemological assumptions (Burrell and Morgan, 1979, Guba and Lincoln, 1994). It also provides a justification for the choice of methods through which

knowledge about the world is investigated and acquired (Burrell and Morgan, 1979). According to Crotty (1998, p. 3), methodology is defined as “*the strategy, plan of action, process of design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes*”. Thus, methodology is a research design that guides researchers in selecting the techniques or procedures to collect and analyze data related to their research (Burrell and Morgan, 1979).

Clearly, the views of ontological and epistemological assumptions taken in conjunction with standpoints on the human nature have direct influence on the choice of research methods (Burrell and Morgan, 1979; Chua, 1984; Hopper and Powell, 1985). If the social world is seen as being similar to the physical or natural world and data can be collected through using protocols and procedures that derive from the natural science (Burrell and Morgan, 1979), then statistical techniques are often used to test hypotheses and analyze research data collected by the use of quantitative methods such as questionnaire surveys (*Nomothetic methodology*). Alternatively, if the social world is seen to be created through the interaction with others, data therefore can be gathered through using qualitative methods such as in - depth interviews and observation (*Ideographic methodology*) (Burrell and Morgan, 1979; Hopper and Powell, 1985). However, it can also be argued that the distinction between quantitative and qualitative methods is not always clear cut.

5.2.2 Assumptions about the Nature of Society

Burrell and Morgan (1979) defined two alternative approaches adopted in research regarding the nature of society, the sociology of regulation and the sociology of radical change. The sociology of regulation approach seeks to give explanations about “why society is maintained

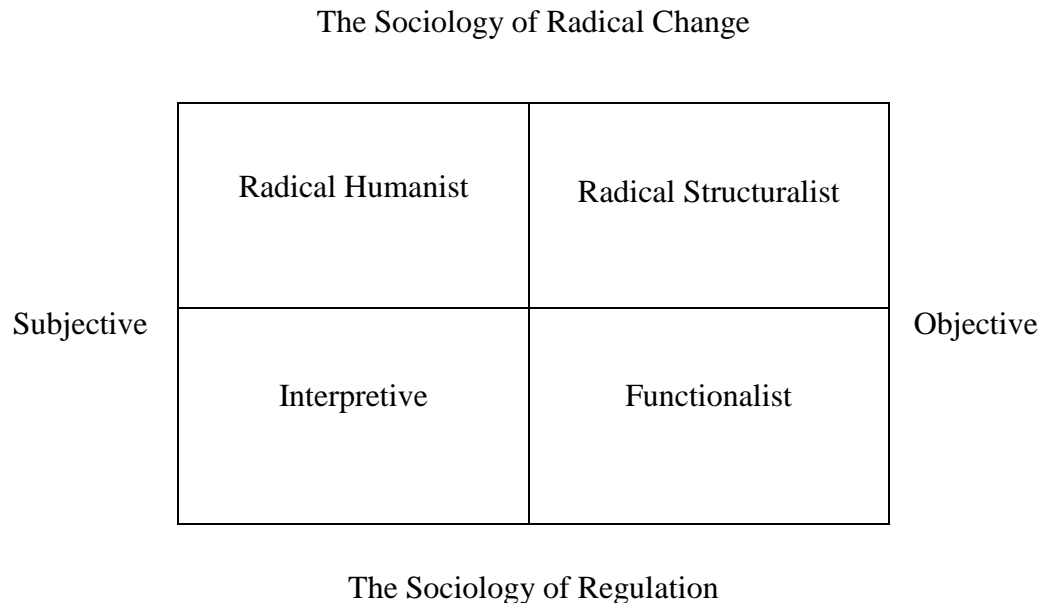
as an entity. It attempts to explain why society tends to hold together rather than fall apart”; emphasizing its underlying stability and order (Burrell and Morgan, 1979, p. 17). On the other hand, the sociology of radical change approach is concerned with interest, conflicts and unequal distributions of power that provide the potential for ‘radical change’ (Burrell and Morgan, 1979, Hopper and Powell, 1985; Ryan *et al*, 2002). This dimension can usefully be abbreviated to what orientation the associated schools take in respect of change. For example, Laughlin (1995) emphasizes the difference between approaches that place emphasis on seeking radical change and those approaches that tend to go in the opposite direction.

5.2.3 Burrell and Morgan Classification Framework

Burrell and Morgan (1979) developed a useful framework to examine how the ontological assumptions about the world form the epistemological notions regarding the nature of knowledge, which in turn influence the research questions asked and the interpretations of its findings. Their analysis is based on a two – by - two matrix, which is reproduced in Figure (5.1) below. As a result of combining the subjective - objective dimensions (represented by the horizontal axis) and the regulation - radical change dimensions or the nature of society dimension (represented by the vertical axis), four different research paradigms were proposed by Burrell and Morgan (1979) for the analysis of social phenomena, namely, functionalist, interpretive, radical humanist and radical structuralist paradigms (see Figure 5.1 below). Each of the four paradigms has basically different assumptions about the nature of social sciences and the nature of society. Burrell and Morgan (1979) also argue that researchers cannot use more than one paradigm at any given point in time because, in order to adhere to the

assumptions underpinning any one paradigm, one is considered to refuse the assumptions of all of the other paradigms.

Figure 5.1: Burrell and Morgan's (1979) Paradigms for the Analysis of Social Theory



Reproduced: Burrell and Morgan (1979, p. 22).

The *interpretive* paradigm assumes a subjective approach to social sciences underpinned by nominalist ontology with an anti - positivism epistemology, a voluntarist view of human nature and an ideographic methodology. This paradigm seeks to explain the stability of behaviour from the individual's standpoint. In other words, it focuses upon comprehending the social world as it is in order to obtain a better understanding of individual behaviour, through observation of ongoing processes (Burrell and Morgan, 1979). On the other hand, the *functionalist* paradigm assumes the ontological assumption of realism with a positivist epistemology, a deterministic view of human nature and a nomothetic methodology. This approach seeks to provide rational explanations of human nature or their affairs and generalize the findings. It also believes that one can understand organizational behaviour

through hypothesis testing. This paradigm has tended to be the dominant paradigm adopted in accounting and finance research since the 1970s (Burrell and Morgan, 1979). The assumptions regarding the nature of society underpinning the functionalist and the interpretive paradigms are located within the sociology of regulation.

The *radical humanist* paradigm is underpinned by the same assumptions regarding the nature of social sciences as the interpretive paradigm. Therefore, it views the social world from a perspective that is non - positivist. However, in relation to assumptions made regarding the nature of society, both the radical structuralist and the radical humanist paradigms are situated within the sociology of radical change, with its associated commitment to emancipation and considerable change, while the radical structuralist paradigm shares the same assumptions concerning the nature of social sciences with those underpinning the functionalist paradigm (Burrell and Morgan, 1979). Theorists in the *radical structuralist* paradigm identify inherent conflicts within society that create constant change through political and economic crises. They concentrate on structural relationships within the social world. They also emphasize the fact that radical change is built into the nature and structure of society. Theorists in the radical humanist paradigm emphasize the significance of relaxing social restrictions that limit human development. They see the current dominant ideologies as separating individuals from their true selves (Burrell and Morgan, 1979).

5.2.4 Alternatives to Burrell and Morgan's Framework

Although Burrell and Morgan's framework has provided a significant tool for classifying social research, it has been subject to a number of criticisms and limitations. For instance, Deetz (1996) argues that the framework has been used to embody research approaches, or as

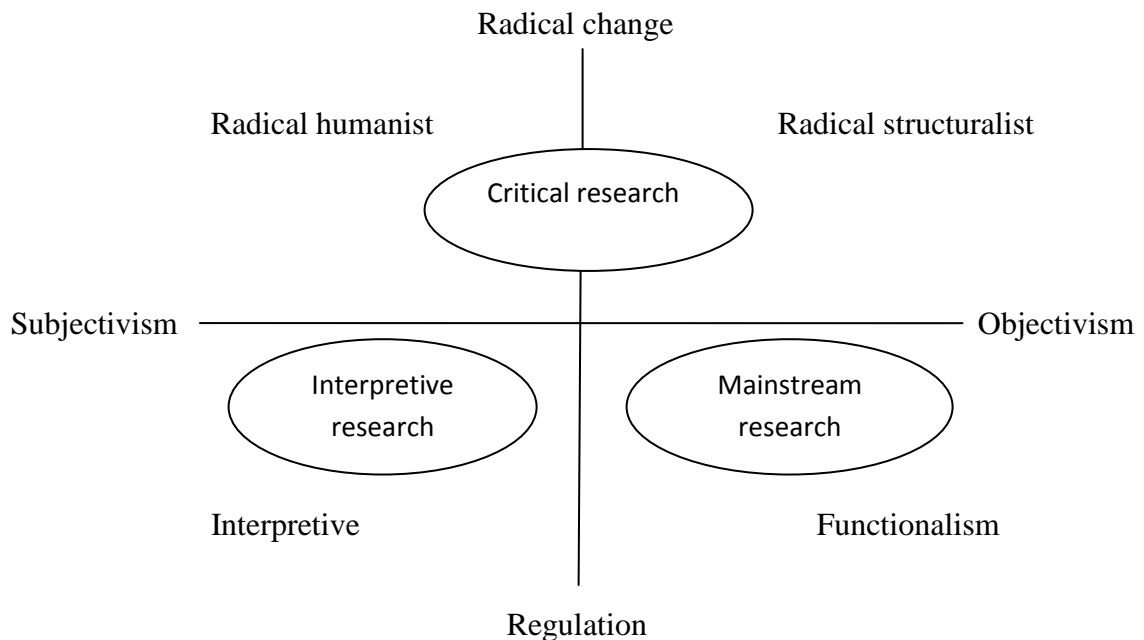
he states “...*easily produce four classified things given object status, rather than providing two lines of differentiation that draw attention to important differences in research programs*” (p. 268). Deetz (1996) also states that the framework dimensions are ambiguous in the main differences in present research orientations and this leads to “*poorly formed conflicts and discussions*” (p. 682). Gallhofer and Haslam (1997)¹³ argue that the framework suggests mutually exclusive methodological categories that have led followers of different perspectives away from engagement in constructive dialogue.

Ryan *et al* (2002) explain that although the Burrell and Morgan’s model provides a useful overview and an initial classification of accounting research, it does not identify certain other dimensions which need to be considered when discussing methodologies, particularly in accounting research. Ryan *et al* (2002) also underline that the distinction between the subjective and the objective is problematic. They argue that “*the human agency is inherently subjective, but can create social structures which then became externalized and, as such, capable of objective analysis*” (2002, p. 44). Chua (1986) and Laughlin (1995) stated that one limitation of Burrell and Morgan’s framework arises from the mutual exclusivity of the four paradigms, which implies that researchers cannot operate in more than one paradigm at the same time. Additionally, Chua (1986) disagreed with the view that all the assumptions of social sciences and society have only strict dichotomies, which implies that a researcher either assumed that individuals were determined by their societal environment or they were entirely autonomous and free - willed.

¹³ The view that positions in different paradigms are mutually exclusive may be considered controversial vis-à-vis the view that the two dimensions constitute continua as emphasized, for example the adaptation of Laughlin (1995).

Hopper and Powell (1985) extended the notions of Burrell and Morgan (1979) by using them specifically in accounting research. They identified three major strands of accounting research, namely, (1) mainstream, (2) critical and (3) interpretive. Hopper and Powell treated the subjective - objective dimension (Burrell and Morgan, 1979) as a continuum rather than a dichotomy, thus allowing a sub - division of schools of thought. Ryan *et al* (2002) portray the ideas of Hopper and Powell (1985), as showed in figure (5.2) below.

Figure 5.2: The Classification of Accounting Research



Taken from: Ryan et al, 2002, p. 40

Mainstream accounting research is objective, supports quantitative data and is value - neutral (Chua, 1986). It is concerned with accounting as a means, not ends and considers existing structures as taken - for - granted (Chua, 1986, Ryan *et al*, 2002), thereby the nature of social reality is assumed to be objective. *Critical research* views reality as objective, however subjective to transformation through interpretations of social actors (Ryan *et al*, 2002, pp. 42

- 43). *Interpretive research* is characterized by a concern to understand the social nature of accounting as it is at the level of subjective experience (Chua, 1986).

5.2.4.1 Laughlin's (1995) Framework: "Middle-Range Thinking Approach"

The current study is based on the model developed by Laughlin (1995) rather than Burrell and Morgan (1979). Laughlin (1995, 2004) provides a useful framework for the positioning of accounting research as well as the selection of an appropriate methodology. According to Ryan *et al* (2002), Laughlin starts from the Burrell and Morgan's framework but he avoids the subjective - objective dimension and, instead, proposes three dimensions for classifying different schools of thought, namely: (1) theory; (2) methodology and (3) change. Theory refers to the level of prior theory. Methodology refers to the level of theory in methodology itself (Ryan *et al*, 2002). Change has a similar meaning to Burrell and Morgan's ideas, but is considered as a continuum rather than discrete choices. Using these dimensions, Laughlin (1995) classified theories which have informed accounting research, as portrayed in Figure (5.3)¹⁴ below. These theories (schools of thought in accounting research) include the quasi-science of the accounting economists, symbolic interactionism, ethnomethodology, structuration, Marxism and labour theory, German critical theory, French critical theory and post-structuralism. According to Laughlin's (1995) matrix (see Figure 5.3), each approach is depicted in the cell referring to its implicit theoretical and methodological chosen position with the change element marked as L, M or H (referring to low, medium and high, respectively). The empty cells are theoretical possibilities but do not currently appear to be

¹⁴ The use of institutional theory in accounting research was not so popular by Laughlin (1995). It would likely be classified alongside structuration theory.

occupied. The positioning for each approach, which is only indicative, could be justified individually (ibid).

Figure (5.3): Characteristics of Alternative Schools of Thought in Accounting Research

		Theory choice: levels of prior theorization		
		High	Medium	Low
Methodological choice: level of theoretical nature of methods.	High	Positivism (L)		
		Realism (L)		
		Instrumentalism (L)		
		Conventionalism (L)		
	Medium		German critical theory (M)	Symbolic interactionism (Kuhn) (L)
	Low	Marxism (H)	Structuration (L) French critical theory (L)	Pragmatism (L) Symbolic interactionism (Blumber) (L) Ethnomethodology (L)
		Change choice: level of emphasis given to critique of status quo and need for change (high/medium/low).		

Taken from: Laughlin (1995, p. 70)

However, since 1995 a number of additional contemporary schools of thought have become widely subscribed to within interdisciplinary accounting research (Roslender, 2013). These schools of thought are *institutional theory*, *actor network theory* and *practice theory*. Such theories were absent from Laughlin's (1995) framework. As a result, these theories are now located within Laughlin's original framework (ibid). In relation to *institutional theory*,

Roslender (2013, p. 13) points out that many of the research papers in the literature of accounting suggest that institutional theory has a strong similarity or affinity with those schools of thought on the left hand column within Laughlin's original framework (three – by – three matrix). These views are consistent with the researcher's notion mentioned above in the footnote. According to Roslender (2013, p. 13), he states that

“[i]nstitutional theory scores relatively low in respect of methodology in much the same way as Laughlin (mis)conceives of symbolic interactionism, and as a result is confirmed as being best located in the bottom left box of the three-by-three matrix. At the limit some institutionalist thinking might just shade into the middle left hand box, alongside structuration theory and some Marxist and Critical Theory, although unlike them, with only a low level of change orientation”.

According to Laughlin (1995), accounting research requires more “middle-range thinking” (the central box in Figure 5.3), as accounting is neither a purely technical concept nor is it context free. The top left - hand part of Figure (5.3) above portrays positive research, while the bottom right - hand part represents interpretive research. Laughlin (1995) contributes key characteristics of the dominant schools of thought (see Table 5.1 for more details). For positivism, he describes theory as being definable with a particular hypothesis to be tested (1995, p. 80). For interpretivism, he describes theory as being ‘ill - defined’ (1995, p. 80). He also describes the nature of positive research in terms of being structured and quantitative, whereas interpretive research is unstructured, ill - defined and qualitative (see Table 5.1 below). Data sought in positive research are selective and conclusions are tight (1995, p. 80), whereas interpretive research is descriptive and depends upon longitudinal data with ill - defined but empirically rich data (see Table 5.1 below). In accounting research, interpretive research permits a researcher “*to focus more closely on the concerns of practitioners and give greater insight into everyday effects of accounting*” (Tomkins and Groves, 1983). These

characteristics help a researcher or investigator to consider the appropriateness of theory to the research methodology (Ryan *et al*, 2002, p. 46). Although positive research still dominates, recent years have witnessed a significant increase in the number of management accounting studies that have adopted an interpretive approach (Ryan *et al*, 2002; Ahrens *et al*, 2008)¹⁵.

Laughlin (1995) suggested that it is possible to have “middle - range thinking” whereby a researcher takes an approach in regard to three choices which should be made before undertaking any empirical investigation in the accounting field. These choices were in relation to “theory”, “methodology” and “change”. The choice regarding the theory involves a view about ontological and epistemological assumptions. It refers to the level of prior theorization to the research. The choice in regard to methodology involves taking a position on the nature and the role of the observer in the discovery process while emphasizing assumptions about human nature and the level of the theoretical nature of methods (methodology). Both the theory choice and the methodology choice are concerned with choosing assumptions about the nature of social sciences. The choice regarding “change” is concerned with choices relating to assumptions about the nature of society, involving taking a position on whether the study fundamentally aims to achieve change in the phenomenon being investigated. The choice regarding change is related to Burrell and Morgan’s assumptions about the nature of society. Laughlin (1995) suggested that it is possible to think of these three choices on three different scales ranging from high to low:

“The “theory” dimension refers to high to low levels of usage of prior theorising before undertaking any investigation. The “methodology”

¹⁵ For more examples, see Chapter 3.

dimension ranges from high to low levels of theoretical closure on the methods of investigation. The “change” dimension relates to high to low levels of critique with regard to the status quo and the need for change in the phenomena being investigated...It is also important to stress that the descriptors “high”, “medium” and “low” are not precise, definable or measurable” (p. 68).

As a starting point to arguing a case for “middle - range” thinking or approach, it is essential to realize the basic nature of this approach in comparison with other viewpoints. In this respect, Table (5.1) below provides an overview of the characteristics of “middle - range” thinking in regard to the two approaches from which it differs most and yet also draws most widely from. These are approaches which occupy the top - left and bottom - right cells of Figure (5.3). These consist of the Comtean approaches and the most subjective of the Kantian / Fichtean alternatives. They are polar opposites and share on common boundaries as Figure (5.3) indicates. Nonetheless, “Middle-range thinking” is linked to both albeit only by corner connections, indicating that it draws from both of these dominant ways of thinking yet is distinct and separate (Laughlin, 1995, p. 79). According to Laughlin (1995), it is not intended in the following to go through each of the descriptive elements in Table (5.1) in detail but rather to describe in broad terms the characteristics of these cells on the diagonal of Figure (5.3).

The high / high / low approach (of theory, methodology and change) assumes a material world which exists distinct from the perception of users. It has generalizations waiting to be discovered. Nevertheless, this discovery process requires the use of defined and definable methods and observation (Laughlin, 1995). According to this approach, “*critique and change are purposefully excluded from what constitutes legitimate enquiry*” (p. 81). On the contrary,

according to the low / low / low approach, theory and methodology have a common attitude in relation to change for different reasons:

“At the far extreme of this perspective, reality distinct from our human perceptions and projections does not exist. While this is an extreme position for all those sharing this viewpoint, generalizations are not assumed to exist and waiting to be discovered. Equally, methods of enquiry need to be uncluttered from theoretical definition on the grounds of the potential damage they may do to the perceptual process. While those of a more scientific persuasion share a common disregard for critique and change it is not for the same reason. Values and personal views are important to Fichtean yet because there is always a mixture between reality and our projections of reality, which on occasions are one and the same, there is no natural mechanism for a critique of interpretation” (1995, p. 81).

On the other hand, the medium / medium / medium approach takes aspects of the above approaches on the theory and methodology dimensions. The Middle - range approach *“recognizes a material reality distinct from our interpretation while at the same time does not dismiss the inevitable bias in models of understandings”* (Laughlin, 1995, p. 81). This medium position accepted that generalizations about reality were attainable, even though not guaranteed to exist, yet maintains that these would always be “skeletal”, needing empirical detail to make them meaningful. The methodology designed following this approach set *“skeletal” rules for systems of discovery while “still allowing for variety and diversity in observational practice”* (Laughlin, 1995, p. 81). The medium position also allows for a more balanced and sophisticated approach to change. Finally, the medium position on change recognizes that there may be situations where critique and eventual change are important but there are also those situations where change is not important (Laughlin, 1995, p. 82). This represented a conditional approach to critique and change which implies that there is openness to radical change as well as the maintenance of the status quo” (Ryan *et al*, 2002).

Table 5.1: Some Key Characteristics of the Dominant Schools of Thought (Laughlin, 1995, p.80)

	High / high low	Medium / medium medium	Low / low low
Theory characteristics			
Ontological belief	Generalizable world waiting to be discovered	“Skeletal” generalizations possible	Generalizations may not be there to be discovered
Role of theory	Definable theory with hypotheses to test	“Skeletal” theory with some broad understanding of relationships	Ill - defined theory - no prior hypotheses
Methodology characteristics			
Role of observer and human nature belief	Observer independent and irrelevant	Observer important and always part of the process of discovery	Observer important and always part of the process of discovery
Nature of method	Structured quantitative method	Definable approach but subject to refinement in actual situations, invariably qualitative.	Unstructured, ill - defined, qualitative approach.
Data sought	Cross - sectional data used usually at one point in time and selectively gathered tied to hypotheses.	Longitudinal case study based. Heavily descriptive but also analytical.	Longitudinal case study based. Heavily descriptive.
Conclusions derived	Tight conclusions about findings	Reasonably conclusive tied to “Skeletal” theory and empirical richness.	Ill - defined and inconclusive conclusions but empirically rich in detail.
Validity criteria	Statistical inference	Meanings: researchers + researched	Meanings: researched
Change characteristics	Low emphasis on changing status quo	Medium emphasis open to radical change and maintenance of status quo	Low emphasis on changing status quo

5.2.4.2 Chua's (1986) Framework

Chua (1986) also developed an alternative framework for the classification of the philosophical assumptions to be more general paradigms for accounting research. This classification consists of three sets of beliefs: (A) beliefs regarding the notion of knowledge, which were divided into two sets of epistemological and methodological assumptions, (B) beliefs concerning the nature of physical and social reality that were based on assumptions, ontology, human intention and rationality, and social relations and (C) beliefs about the relationship between theory and practice. This classification is shown in Table (5.2) below. One of the main differences that Chua (1986) emphasized is that her framework was to assess the strengths and weaknesses of diverse viewpoints in accounting while the Burrell and Morgan's (1979) framework lacked critical evaluation. Moreover, Chua did not state that her framework comprised all social perspectives into a permanent classification; she only established her framework in an attempt to identify current social perspectives.

Table 5.2: Chua's (1986) Classification of Philosophical Assumptions

A. Beliefs about Knowledge
Epistemological
Methodological
B. Beliefs about Physical and Social Reality
Ontological
Human Intention and Rationality
Social Order/Conflict
C. Relationship between Theory and Practice.

Source: Chua (1986, p. 605).

5.3 Philosophical Assumptions Underpinning this Study

This section outlines the various philosophical assumptions of the researcher when approaching this research study in light of the research questions outlined in Chapter One. These assumptions support the adoption of interpretive approach with particular emphasis on the use of a qualitative methodology in this study.

5.3.1 Ontological, Epistemological and Human Nature Assumptions

Consistent with the above, the study adopts an interpretive approach to research. In addition, it suggests that the theoretical framework discussed in Chapter four is capable of explaining the change in management accounting practices. Consequently, in this study, the researcher does not assume that there is a concrete reality out there in the social world waiting to be discovered. Therefore, the *ontological assumptions* of this study consider that individuals play a role in constructing a form of reality and accept that the reality of the social world can be a product of an individual's consciousness and can therefore be subjectively created (Creswell, 1998). On a continuum ranging from nominalism to realism (see Section 5.2.1), the researcher thus considers himself to be at the nominalistic end of a continuum inclining towards the low ontological position outlined by Laughlin (1995) (see Section 5.2.4.1).

As for the *epistemological assumptions*, knowledge can come through interaction with individuals who are involved in this study and through looking at their interior perspectives. Knowledge is not only obtained from observation and research of regularities and causal relationships between the constituent elements of the social world. Therefore, knowledge is attributed a more personal nature (Chua, 1984; Hopper and Powell, 1985). The researcher thus perceives himself to be at anti - positivistic end of a continuum ranging from anti -

positivism to positivism, leading to a broadly subjectivist approach of social sciences (see Section 5.2.1).

For *human nature assumptions*, the researcher does not consider that human beings and their experience are determined by their external environment and accepts that they have some control over their environment. Therefore, it is not accepted that individuals are completely free - willed and autonomous, whilst at the same time there is an inability to accept that they are entirely controlled by their particular situation. This orientation leads the researcher to be in a mid - point of a continuum that ranges from voluntarism to determinism in his core assumptions regarding human nature.

5.3.2 Assumptions Regarding the Nature of Society

The core objective of this study is to identify what type of management accounting and control system changes (MACS) that have taken place in two Libyan state - owned manufacturing companies: the First Company (AC) and the Second Company (BC). It also adopts a NIS framework to provide a rational explanation of why and how management accounting change has taken place in Libyan state - owned manufacturing companies. It attempts to explore the institutional factors that may drive management accounting practices or systems to change. In addition, the study aims to investigate whether there is resistance to change in any of the MACS. In other words, the main objective of the researcher is to understand and explore the phenomenon under investigation without any intention of creating changes in the phenomenon being studied. The phenomenon under consideration within this thesis is management accounting change in state - owned manufacturing enterprises in Libya. The research focuses on the issue of how the status quo is constructed and maintained rather

than changing it. The research is based on Laughlin's (1995) framework; therefore this study would appear to accord with the low position of change characteristics. Laughlin (1995, p. 84) states that "[a]t the 'low' end of the change continuum everything is satisfactory and in need of preservation". Similarly, this area of study reflects the sociology of regulation, which is consistent with the use of interpretive paradigm of Burrell and Morgan's (1979) framework (see Figure 5.1). Therefore, the current study employs an interpretive approach to research.

5.3.3 Methodological Choice

As elaborated earlier, the choice of methodology is directly influenced by the ontological, epistemological and human nature assumptions of the researcher (see Section 5.2.1). These assumptions outlining the researcher's perception of the social world have been discussed above in the context of the current study. According to these primary assumptions, the methodological assumptions are concerned with adopting the most appropriate methods of data collection and approaching the research questions. In the case of this study, the subjective and interpretative orientations emphasize qualitative research¹⁶ rather than quantitative research¹⁷ methods. Therefore, a primary subjective approach to the study of social sciences is undertaken. The use of ideographic methodologies tends to lead to the use of qualitative research methods of data collection in order to fulfil the objectives of the current study. The case study approach has been chosen in conducting this research. The research relies on three sources of evidence for gathering data, including semi - structured

¹⁶ Qualitative research method refers to "research that produces descriptive data: people's own written or spoken words and observable behavior" (Taylor and Bogdan, 1984, p. 5).

¹⁷ Quantitative research method refers broadly to research that emphasizes "the measurement and analysis of causal relationships between variables [with] inquiry...purported to be within a value-free framework" (Denzin and Lincoln, 1994, p. 4).

interviews, direct and participant observations, and documents. The next section will discuss these research methods in detail.

5.4 Research Methods

This section describes the research methods used in this thesis. Hussey and Hussey (1997, p. 54) state that the term ‘method’ refers to “*the various means by which data can be collected and / or analyzed*”, whereas Saunders *et al* (2009, p. 2) define the term ‘method’ as “*the tools and techniques used to obtain and analyze the data*”. In general, there are two major sources of data that can be employed in research: primary and secondary data. Primary data are original data gathered by the researcher to meet the research objectives, such as case studies. Secondary data are data which already exist, collected by others for some other targets and can be found in different sources, for example, books, annual reports, government surveys, journals and published statistics (Collis and Hussey, 2009).

This section deals with the appropriate qualitative research methods which will be used in the present study. The case study approach was adopted as the primary research method for this research. The following sections will discuss the justification for adopting this approach as well as the strengths and criticisms of case studies. It also outlines the methods which will be used in the case study approach in this study.

5.4.1 Case Study Approach

Case study approach is taken in this study to discover the MACS as practices that exist in two Libyan state - owned manufacturing companies: the First Company (AC) and the Second Company (BC). It is also employed to gain a better understanding of the change dimension

and potential influential factors in two Libyan state - owned manufacturing companies. Identification of the change dimension and the causal factors will explain ‘what’, ‘why’ and ‘how’ management accounting has changed in these companies.

Several studies have called for case studies to examine accounting in practice, to obtain an in - depth view of the actual practices of management accounting in its organizational context, and to gain a better understanding of the context and factors which shape management accounting practices (MAPs) (e.g., Hopper and Powell, 1985; Kaplan, 1986; Scapens, 1990; Ryan et al, 2002; Yin, 2003). Case studies provide exploration of MACS of real individuals in a work place explanation of management accounting theories (Scapens, 1990). Ryan *et al* (2002, p. 113) stated that “*case studies offer us the possibility of understanding the nature of accounting in practice; both in terms of the techniques, procedures, systems, etc. which are used and the way in which they are used*”. Yin (2003, p. 13) defines the case study method as “*[a]n empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used*”.

The relationship between qualitative methodology and case study method is very well defined. Case studies provide a strong empirical foundation for the collection of qualitative data in generating theory about the real world (Scapens, 1990). The objective of case study research is not to derive universal truth or generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization) but, rather, to explain the social process at work. This approach will help by interpreting the research findings and the role of theory in this methodology is not to generalize but to explain the change in MACS. Otley and Berry (1994, p. 50) argued that “*it is fair to note that generalization is not the prime concern*

of researchers using this approach". Instead, the objective of using the case study approach in this study to understand the phenomenon of change in management accounting in Libyan case studies within their dynamic environment.

Over the past three decades, the use of the case study has become more popular in studies on management control systems. Drury and Tayles (1995) argued that empirical studies in management accounting have consisted of mainly an in - depth case study research concentrated on practices within a specific company. A survey method would not have allowed the researcher to undertake an in - depth study of change in management accounting in the manufacturing companies. Therefore, a case study approach is superior to a survey method in achieving the objectives of this study. In addition, case studies are preferred when the researcher poses why and how questions over real life organizational phenomena over which they have little or no control (Yin, 2003). As argued by Dey (2001), the case study is particularly useful for understanding why and how organizational practices operate in a specific environment.

Case studies enable the investigator to collect data about MACS from participants in their context and also to provide the flexibility to explore and understand issues related to the phenomenon being studied. In addition, case studies analysis enables the researcher to deal with a variety of issues. Yin (2003) and Ryan *et al* (2002) classified different types of case studies used in research including descriptive, illustrative, experimental, exploratory and explanatory case studies. *Descriptive case studies* allow the researcher to describe the current accounting practices in the selected cases and highlight any gaps between theory and practice. *Illustrative case studies* enable the researcher to illustrate new innovations when they are being developed by companies. *Exploratory case studies* enable the researcher to

explore the reasons for the current accounting practices. These case studies allow for the generation of ideas, assumptions and testable hypotheses. These hypotheses can be later tested on large samples. *Explanatory case studies* aim to explain the reasons for observed accounting practices. The key objective of this case study is to understand the practices rather than to produce generalizations. Finally, *experimental case studies* attempt to evaluate the benefits and difficulties of implementing a new procedure or technique in practice.

Spicer (1992) addressed the classification of case study research and grouped case studies into the following main categories. Group (1): descriptive and / or exploratory case studies seek to describe or explore reasons for particular practices. Group (2): illustrative and / or explanatory case studies are used directly to explain observed practice and indirectly to help inform non - case empirical research. The key objective of this study is to investigate the change of the MACS in two Libyan state - owned manufacturing companies (AC and BC) and identify factors that caused change in these practices. According to Ryan *et al* (2002) and Yin (2003) classification, this study is considered an exploratory, descriptive and explanatory case study. It is exploratory because a review of the literature suggested no study has been conducted on state - owned manufacturing companies in Libya. The study therefore explores the change of MACS in the studied companies. The study is also descriptive because the MACS or practices observed in the companies are described. The study is explanatory because explanations are sought for the observed MACS and practices. According to Spicer's (1992) classification, the group (1) case study is considered most appropriate for this research.

In summary, the case study approach is adopted for the current research because of the following reasons: the case study method provides rich and deep insights into management

accounting practices in particular organizational context (Yin, 2003). It also allows the researcher to have a great degree of flexibility and motivates him / her to obtain an adequate range regarding the amount of data to be collected and the sources of information to be used (Yin, 2003). Moreover, intensive case studies taking into consideration all their aspects and presenting detailed descriptions and analysis; direct contact with the organizations' staff in an attempt to provide more dependable knowledge (Yin, 2003). In addition, the case study approach is a qualitative method which refers to research that produces descriptive data (Taylor and Bogdan, 1984).

5.4.1.1 Strengths of Case Studies

Scapens (1990) suggested that the case study approach is helpful for its potential to disclose a rich and detailed understanding of the functioning of management control and the factors that caused change in organizations. Qualitative research approach allows the study of a phenomenon in its organizational context. It is argued by many that qualitative methods, such as a case study approach in accounting research, can make substantial contributions to the study of accounting systems in organizations (e.g., Hopper and Powell, 1985; Scapens, 1990). Bryman (1984) also argues that qualitative methods are more sensitive to complex environments than quantitative methods. Qualitative methods can provide a better understanding of the processes in organizations.

There are also many advantages and strengths in using the case study method. First, researchers can employ triangulation methods of data collection such as interviews, observations, document analysis and external information which enhance the reliability of research results (Ferreira and Merchant, 1992; Yin, 2003). It also recognizes any

inconsistencies in information which will require further exploration. Second, a case study can continue over a period of time which allows researchers to maintain a continuous trend of observation (ibid). Finally, a case study gives researchers or investigators the opportunities to observe sequences of events and how they emerge in their natural setting (Yin, 2003).

5.4.1.2 Critique of Case Studies

In spite of such strengths of the case study method, it has also weaknesses and is subject to criticisms which researchers have to take into consideration. The main criticism of case studies is the inability to generalize the findings (Otley and Berry, 1994; Ryan et al, 2002). However, Scapens (1992) and Yin (2003) defended case studies from this criticism on the grounds that case studies can lead to theoretical generalization rather than statistical generalization. Therefore, the objective of the case study research is not to achieve statistical generalization.

Ryan *et al* (2002) argued that case studies are limited because the investigator is not able to remain independent and neutral from the research setting. Another criticism of case studies provided by Ryan *et al* (2002) relates to the extent to which the need for confidentiality may affect the case study reports. In an attempt to defend information obtained from the organization being leaked out, the researcher may be omitting important information which would have provided more insights into the issue under investigation.

Despite these weaknesses, the case study is appropriate for this study. As argued by Allan (1991, p. 182),

“[t]hose who favour qualitative approaches would accept that the perspective a researcher brings to the research does influence the resultant ‘findings’, but

that the flexibility of the methods, their time span and the quality of data collected allows for a far greater reflexivity about the theoretical and conceptual assumptions”.

Yin (2003, p. 33) suggested a number of strategies to avoid these criticisms, and these are set out in Table (5.3) below. Yin (2003) defined the four design tests as common tests to all social science methods and categorized them as follows:

Construct validity refers to the establishment of correct operational measures for the issue being studied (Yin, 2003). Saunders *et al* (2009) also defined construct validity as the extent to which the researcher's dimension questions really measure the attendance of those constructs that they planned to measure.

Internal validity refers to the extent to which a causal relationship can be established, i.e., determining the existence of certain conditions as being caused by other, rather than spurious relationships (Yin, 2003). He also mentioned that internal validity is only concerned with explanatory case studies, and not with descriptive or exploratory case studies.

External validity refers to the domain about which a study's findings in a case study can be generalized (Yin, 2003). In the case study method, researchers attempt to generalize theories (analytic generalization) and not to itemize frequencies (statistical generalization) (ibid).

Reliability indicates that the operations of a study, such as the data collection procedures, can be repeated by another investigator to arrive at the same findings when following the same procedures (Brownell, 1995). This means that reliability aims to eliminate errors and biases in a case study research (ibid).

Table 5.3: Case Study Tactics for Four Design Tests.

Tests	Case study tactic	Phase of research in which tactic occurs
Construct validity	Use multiple sources of evidence	Data collection
	Establish a chain of evidence	Data collection
	Have key informants review draft case study report	Composition
Internal validity	Do pattern-matching	Data analysis
	Do explanation-building	Data analysis
	Address rival explanation	Data analysis
	Use logic models	Data analysis
External validity	Use theory in single-case studies	Research design
	Use replication logic in multiple-case studies	Research design
Reliability	Use case study protocol	Data collection
	Develop case study data base	Data collection

Source: Adapted from Yin (2003, p. 34).

5.4.2 Data Collection Methods

Institutional theory uses case studies as the primary data collection method. The main sources of data collection utilized in case studies include interviews, document analysis, direct observation and participant observation (Brownell, 1995). In this study, multiple methods of data collection were employed to attempt to avoid jeopardizing validity and reliability. Research that has used multiple methods has the ability to capture threats to the phenomena under investigation (Ferreira and Merchant, 1992; Yin, 2003). For this research study, this case study approach uses multiple sources of evidence to collect data from two Libyan state - owned manufacturing companies: the AC and the BC, a method known as data triangulation.

These triangulation methods include semi - structured interviews, document analysis and observation.

5.4.2.1 Interviews

One of the most important sources of the case study is the interview. There are three types of interviews, namely, structured interviews, unstructured interviews and semi - structured interviews. In structured interviews, the interviewer uses predetermined questions to be asked to each interviewee in the same way and then record the response based on a standardized schedule. This type of interview does not allow a certain degree of flexibility in the asked questions (Saunders *et al*, 2009). According to Sekaran (2003), the key purpose of the unstructured interview is to investigate and explore the several factors in the situation that might be fundamental to the broad problem area. More clearly, unstructured interview does not require a predetermined list of questions and gives the interviewee a chance to answer freely about events. In this type of interviews, obtaining accurate responses or more information depends on the interaction between the interviewer and interviewee in a successful debate and the interviewer requires more skills and experience (Saunders *et al*, 2009).

On the other hand, Bryman and Bell (2007) describes the semi - structured interviews as:

“The researcher has a list of questions on fairly specific topics to be covered, often referred to as an interview guide, but the interviewee has a great deal of leeway in how to reply. Questions may not follow on exactly in the way outlined on the schedule. Questions that are not included in the guide may be asked as the interviewer picks up on things said by interviewees. But, by and large, all of the questions will be asked and a similar wording will be used from interviewee to interviewee” (p. 474).

Semi - structured interviews consist of predetermined questions concerning specific themes associated with the research questions. Every interviewee is asked all questions in logical and consistent order (Berg, 2007). Bryman and Bell (2007) argued that the flexibility and comparability of semi - structured interviews can assist the interviewer / researcher to focus on the key target of the interview since the interviewer can make sure that all the questions are being covered. As a result, personal face to face semi - structured interview is one of the most widespread techniques for qualitative research when looking for flexible, detailed and comparable responses. *For this research project*, the semi - structured interview method, as shown in Appendix 3 and 5, was chosen in order to collect data on the perceptions of managers of administrations, heads of offices and accountants about the topic under study.

There are many advantages of using semi - structured interviews such as: (1) in - depth information can be supplemented with other rich data such as that gained by observation during the interview (Kumar, 2011), (2) the researcher can clarify the questions, reply to any inquiries the interviewees may have and explain terms, (3) minimizing the non - response rate of the study and (4) it is considered to be the most useful method of data collection about the attitudes and feelings of relevant individuals in relation to specified research topics (Saunders *et al*, 2009). However, despite these advantages, Collis and Hussey (2009) emphasized some disadvantages associated with conducting interviews: (1) an interview needs more experience and skills from the researcher to conduct it; (2) it takes personal time of interviewees and is expensive and (3) respondents may be concerned regarding confidentiality of the information given.

In the Libyan context, semi - structured interviews are a more appropriate and preferred method for this study rather than questionnaire surveys because of the following practical reasons:

- The postal service is very unreliable. Therefore, the response rate of any mail questionnaires will be very low or rather not existent.
- Libyan people do not generally care for mailed questionnaires because they think there is no time to spend on answering questions or their replies take long time. Hence, the completed questionnaires might take months to arrive or, in some cases, never arrive.
- At the time this research is being conducted, there is no postcode for most Libyan manufacturing companies. In addition, some companies had changed their location, particularly the public ones due to political and economic reasons.

5.4.2.2 Document Analysis

Documents are valuable in verifying the issues mentioned in an interview and provide other specific details, in order to confirm information from other sources, thus increasing validity (Yin, 2003, p. 81). Yin argues that documentary information is likely to be relevant to every case study theme and this kind of information can take many forms and should be the purpose of a clear data collection plan. Documents can also provide important evidence about personalities and conflicts between the participants and behavior which the investigator observes (Brownell, 1995). The most common documentation types used in case studies are the following (Yin, 2003): personal documents, for instance, letters, written reports of events or notes; administrative documents such as internal audit reports, agendas, budget reports,

announcements, proposal reports, monthly management accounting reports and other internal reports.

5.4.2.3 Observation

Observation is another method to collect and to record information about the daily work processes, activities, people and their behaviour in their natural work environment through watching and describing what they actually do (Sekaran, 2003). Observation is one of the qualitative methods which have roots in conventional ethnographic research (Mack *et al*, 2005). Saunders *et al* (2009) argue that observation is a useful method for the recording, description, analysis and interpretation of people's behaviour. The current study employs two types of observation, namely, direct observation and participant observation.

5.4.2.3.1 Direct Observation

Many researchers prefer to use direct observation in their researches (Browne, 2005). In this type, researchers can observe people in their normal positions without any influence or changes in their behaviour or environment (ibid). Thus, it provides another source of evidence in the case study (Yin, 2003).

5.4.2.3.2 Participant Observation

Participant observation can provide more in - depth understanding than interviews alone. It also allows the researcher or investigator to observe events that participants themselves might not be concerned about or they are reluctant to discuss (Browne, 2005; Mack *et al*, 2005). According to this kind of observation, the researcher must disclose him / herself and his / her

objective as a researcher. The researcher is particularly concerned to gain accurate information of the company's employees (Saunders *et al*, 2009).

5.5 Access to Data

Getting access to an organization is always a concern for the researcher (Baxter and Chua, 1998). According to Taylor and Bogdan (1984), an ideal research setting is one where the observer has easy access, is able to establish immediate relationship with participants, and can collect data that is directly related to the research interests. In the current study the researcher sought access to the two state – owned manufacturing companies (the AC and BC) through personal contacts. Both companies were approached formally using a formal letter from the researcher's supervisors asking for permission to get access to managers and employees (see Appendix 2). As well as, both companies were contacted by a letter from the researcher explained the objectives of the study; methods of research for collecting data through organizational documents, interviews with managers and employees at all levels of the company, and observation of management meetings (see Appendix 1). In the first case company (AC), access was negotiated with senior management of the company and also with the Financial Operations General Director in the company. The second case company (BC) was approached in a similar manner; access was negotiated with the top management of the company and also with the Director of Administrative and Financial Affairs in the company.

5.6 The Process of Conducting and Analyzing Data

The data analysis stage was started after the data collection was completed. This stage included detailing the interviews, documents and reports were summarized and observations were codified. During the direct and participant observation period, brief notes were taken.

These notes were expanded and the majority of these notes were reflected as questions that were being asked through interviews. In relation to interviews, the researcher conducted 32 face – to – face semi - structured interviews with managers, heads and accountants in the aforementioned two Libyan state - owned manufacturing companies (the AC and BC) (see Appendices 6 and 7 regarding the participants). These interviews comprised 17 interviewees in the AC and 15 interviewees in the BC. The interviews lasted about 3 months, i.e., from mid October 2012 to mid January 2013. The conduct and analysis of the interviews involved three stages: (i) arranging and performing the interviews, (ii) transcribing the interviews and (iii) analyzing the responses. Participants were selected based on the availability, experience and knowledge. To arrange for the interviews, the researcher used the phone in most cases both with the AC and the BC. These companies are located in Tajoura City in the north of Libya, about 20 km from the capital Tripoli. Furthermore, the distance between the two companies is about 1.5 km. Thus, this represents an advantage for the researcher to conduct interviews for both companies on the same day. However, there were some practical difficulties involved with conducting the interviews. Since the researcher is from the southern part of Libya, he had to travel and stay in Tajoura. This was time consuming and expensive. In addition, the interviews were conducted in these companies amidst the current lack of security in Libya.

Regarding the interviews, which generally lasted around an hour, the researcher employed a semi - structured instrument guide to provide a consistent framework for each of the conversations and help maintain a focus on the research objectives. The version of the semi -

structured interview¹⁸ consisted of 6 parts for the managers, heads and accountants. The questions were generated from following a careful analysis of the literature about change in management accounting to identify the most relevant issues that reflected the institutional theory underpinning the study¹⁹. The selected questions were then piloted with academics and post - graduate researchers to be developed and further refined. Before the commencement of each interview, the researcher asked for permission to tape the conversation and 18 of the 32 interviewees²⁰ agreed about using a tape - recorder (10 interviewees at the AC and 8 interviewees at the BC were recorded). As for the remaining 14 participants, the researcher was writing their responses during the discussions. During the interview, the interviewer had to take notes in order to generate other questions.

The second stage in the process is the transcription of all interviews. This was undertaken immediately after finishing the interviews. As Silverman (2011) points out, the transcription process should be undertaken as soon as possible after conducting the interviews, so that the points and issues raised are still fresh in the researcher's mind. All of the interviews were conducted in the Arabic language²¹. Therefore, the initial transcriptions had to be translated from Arabic to English. For the purpose of analyzing these interviews, the researcher created a grid Microsoft Excel. For each case company studied, the semi - structured questions were listed in columns while the interviewees were organized by rows; this technique allows the researcher to explore and compare collective responses to a particular question. In addition,

¹⁸ Appendix (3) provides a list of the questions asked to managers, heads and accountants in AC and BC.

¹⁹ See Chapter 4 for more details.

²⁰ Appendices (6 and 7) provide a list of the participants in the interviews in AC and BC.

²¹ Arabic is the official language in Libya.

the main points and relevant quotes were identified. Regarding the third stage in the process is the analysis of interviews. Saunders *et al* (2009) point out that “*there is no standardized procedure for analyzing such data*” (p. 490). Nevertheless, they propose a three - step method of investigation: (i) summarizing; (ii) categorization and (iii) structuring of meanings, whereas pointing out that the process is “*demanding and should not be seen as an easy option*” (p. 484). A number of wide themes were therefore developed and these are reflected in the structure of the discussion of the findings in the following chapters.

In relation to document analysis, there have been some documents that were collected for the present study from the AC and BC as follows: the new and old organizational structure for the AC and BC, the establishment contract, new essential rules and regulations, job descriptions, written reports of events, administrative documents such as monthly and quarterly reports, the state decisions, annual financial statements (income statement and balance sheet), profit and loss accounts and production reports. Therefore, all these documents have been summarized (see also Appendix 12). Furthermore, the documents that have been collected and used in the empirical analysis of the study covered the period from 1999 to 2012.

5.7 Summary

The chapter has considered the research methodology and methods underpinning this study. It outlines the core philosophical assumptions adopted by the researcher in approaching this research study. These assumptions especially support the adoption of interpretive approach with special emphasis on the use of qualitative research methods in order to obtain an in -

depth understanding of MACS change in two Libyan state - owned manufacturing enterprises (the AC and the BC).

In addition, an overview of the case study approach was presented to explain the nature of the case study approach and the advantages and limitations of the case study. The case study is adopted to achieve the research objectives. Within this case study, triangulation data collection methods, namely, semi-structured interviews, direct and participant observations and document analysis have been used in the current study.

Having discussed the research methodology and methods in this chapter, the next two chapters will present and discuss the most important changes and development in management accounting systems and practices in each company as well as reviewing such systems and practices.

Chapter Six: Case Study No. 1:

A Discussion of the MACS in the First Company

6.1 Introduction

This chapter presents the results of the first case study (AC). The chapter begins with the historical background of the company under study in Section 6.2. This section includes some relevant information concerning the establishment of the company, its capital, the number of employees, the number of factories and the location of the company. Section 6.3 outlines the objectives of the company. Section 6.4 discusses the quality and the environment policy implemented in the company. Section 6.5 shows the organizational structure of the company. Section 6.6 discusses the management accounting and control systems that exist in the AC. Section 6.7 discusses the types of change in the AC's management accounting and control systems. Section 6.8 highlights the factors that engendered the changes. Section 6.9 outlines the resistance to change. Section 6.10 summarizes the chapter.

6.2 An Overview of the Company's History

The AC was established under a resolution of the agent of the Libyan Secretariat of the economy No.102 on December 15th, 1976, and was based on the partnership agreement signed between the National Institution for Manufacturing, and the Italian Fiat Company in June 1976. It was also recorded in the commercial register under No. 8815 in Tripoli on December 29th, 1976. It began implementing its plans in 1979 and entered the stage of actual production effectively on January 1st, 1984 in accordance with the Libyan Secretariat of Industry resolution No.2 of 1983. The number of employees in the AC was 770 by the end of

October 2012. In 2011, the AC was closed for several months, because of the Libyan uprising and the embargo that imposed by the UN on Libya (see Section 2.3). However, in 2012, the AC opened again due to stopping the war between Gaddafi's forces and Libyan rebels as well as the lift of the UN sanctions on Libya. The AC still operates in the industrial and commercial field according to the goals set forth in the statute of the company.

The AC is located in the industrial complex based in Tajoura²² and occupies a total area of 66 hectares, including 17 hectares for the roofed area for manufacturing and assembly shops, stores of raw materials and other auxiliary buildings. The company is also situated between the Libyan Company for Tractors and the Tyres factory. In addition, the AC is a joint venture company between the Libyan secretariat of industry and the minerals and Industrial Vehicles Corporation, IVECO, based in Turin, Italy. In relation to the AC's capital, the primary capital has been determined in accordance with the Statute of LD 6800000 and the share of the foreign partner, IVECO, is 25% of the TBC's capital. The company's authorized capital has currently reached LD 96,000,000 and the paid up capital stands at LD 93,150,000.

The AC is also a company with more than 20 years of exceptional experience in the engineering, manufacturing, assembling and marketing of trucks and buses and its spare parts and components. It was also given a certificate of International Standard Organization (ISO 9001: 2000) in 2004. Moreover, the company has great capabilities that are distributed among several factories: trucks factory; buses factory; pressing center; metallic cabins factory; light factory; shock absorber factory; and an engine factory. These factories produce

²² Tajoura City is located to the east of Tripoli.

various types of trucks and buses. See Table (6.1) below for details regarding various types of products at the AC.

Table (6.1): Shows the Different Types of Products at the AC

<p>1) Light Trucks</p> <p>Pick Up 35-12 3000 4x2 GV Weight 3.5 tons on road.</p> <p>Pick Up 52-12 3950 4x2 GV Weight 5.2 tons on road.</p>
<p>2) Medium Trucks</p> <p>Chassis Cab ML 90 E 18 H 3690 4x2 GVW 9 tons on road.</p> <p>Chassis Cab ML 90 E 18 H 4815 4x2 GVW 9 tons on road</p> <p>Chassis Cab MLC 100 E 21 W 3690 4x4 GVW 10 tons off road</p>
<p>3) Heavy Trucks on road, off road</p> <p>Chassis Cab AT 190 T 38 H 4200 4x2 GVW 19 tons on road</p> <p>Chassis Cab AT 190 T 38 H 5100 4x2 GVW 19 tons on road</p> <p>Chassis Cab AT 190 T 38 WH 4200 4x4 GVW 19 tons off road</p> <p>Chassis Cab AT 380 T 38 H 3500 6x4 GVW 38 tons on road</p> <p>Chassis Cab AT 380 T 42 WH 3820 6x6 GVW 38 tons off road</p> <p>Tractor AT 400 T 38 TH 3500 4x2 GCW 44 tons on road</p> <p>Tractor AT 720 T 42 TH 3500 6x4 GCW 60 tons on road</p> <p>Tractor AT 720 T 42 TWH 3820 6x6 GCW 85 tons off road</p>
<p>4) Buses</p> <p>TBC has several types of passenger capacity from 16 up to 47 passengers.</p> <p>Buses inside and outside the cities and tourist buses 47 passengers</p> <p>Bus type 40-12 load 16 passengers</p> <p>Bus 59-12 load 24 passengers</p>

6.3 The Objectives of the Company

There are several key goals for the company:

- The short and long-term targets of the company are to increase its productive capacity to meet the increasing demand for trucks and buses products and the production of all types of trucks and buses with the participation of all employees in the productive efforts.
- The engineering, manufacturing, assembly and selling of trucks and buses of various sizes by using various components of equipment, and spare parts in Libya and the Arab World and Africa.
- Maintaining the company's status and its share in the local market and strengthen its relationship with key customers.
- Transferring technology and reinforce this industry in Libya.
- The export of the components made in the AC to IVECO and its different factories.
- Contributing to the development of Libyan society through the provision of job opportunities for the citizens residing within Libya and the composition of national technical cadres and rehabilitate them, and also contributing to the development and prosperity of the industry.
- Maintaining the quality of products and the surrounding environment.
- Achieving profitability through: (a) Reducing the costs and expenses as well as purchase prices in order to maximize sales and increase the company's market share;

- (b) Maintaining the company's cash flow; (c) increasing return on investment; and (d) Meeting the needs of customers in better manner than competitors.

6.4 The Quality and Environment Policy

The AC is a Libyan company and a leader in the field of engineering, manufacturing, assembly, selling of commercial vehicles and buses and spare parts. Its policy for quality and environment is as follows:

1. Providing quality products of the company that meet the requirements and customer satisfaction and at the right price and also provide the best services that make customers satisfied at some point after the sale.
2. Activating the role of quality control management in determining the levels and quality requirements of all production processes, controlling and follow-up of these processes and that no less than what is the case of IVECO "the owner of the license".
3. Activating the role of management of security, safety and environment in controlling and conservation of the environment surrounding the company and the environment within the company.
4. The continuous improvement and development in the quality of the products and the preservation of the environment and pollution prevention through the continuous improvement of the effectiveness of the quality management systems and environmental performance and raising the efficiency of workers on an ongoing and permanent basis.

5. Conformity of the work in the company in accordance with the environmental laws and the regulations in force in Libya.
6. The continuous cooperation with IVECO in various fields related to the products as well as the quality management system (QMS) in accordance with the provisions of industrial cooperation and after-sales service conventions.
7. Follow up the implementation and monitoring of the product quality and control during and after manufacturing and after-sales and prepare monthly reports for that.
8. Exploit the network of after-sales services to record and analyze the cases of deviation and discuss and develop solutions in detail in the programmed monthly meetings.
9. Teamwork in all areas of the company to reduce wastage of time, reduce the cost and preserve the environment.

In addition to the above, determining the objectives of the quality and the environment by the senior management, and that are consistent with this policy and review them regularly through management reviews. After that, declaring this policy in the company's administrations and departments: making billboards regarding all those who are interested in the affairs of the company and the environment and reviewing this document (the quality and the environment policy) annually through management reviews to ensure the continuity of its suitability to work on.

6.5 The Organizational Structure of the Company

The organizational structure of the AC has witnessed some modifications since 2009. Therefore, new administrations and departments had been introduced to the new version of the organizational structure. The new / current organizational structure of AC, as shown in Appendix 8, consists of the board of directors, general manager, four offices (general manager office, legal affairs office, internal auditing office and planning systems and quality processes office) and seven general administrations (human resources and industrial security general administration, financial operations general administration, commercial operations general administration, strategic planning administration, production general administration, technical services general administration and supply chain general administration). All these administrations are supervised by the general administration of the whole company as well as the board directors. The general administration represents a high authority in the company. Also, the chairman of the board directors is the same person acting as the general manager of the AC.

The previous organizational structure, as shown in Appendix 9, was divided into six offices (general manager office, auditing office, labour analysis office, legal office, training office and producers services office) and eight administrations (general administration, financial and economic affairs administration, security and safety administration, commercial affairs administration, the organizational administration and the productive forces, technical affairs administration, quality control administration and production administration). Accordingly, there have been some changes in the organizational structure of AC. The Financial

Consultant²³ demonstrates that one of the reasons for change is that “the company is attempting to cover some shortage in certain disciplines through developing and expanding the administrations in the company, such as the Financial Operations General Administration, the Commercial Operations General Administration, the Production General Administration and the Technical services General Administration. Also, creating good opportunities will be provided, such as the communication with employees and the development of personal skills. Furthermore, the senior management will not be wasting time to carry out unnecessary duties which are a matter for the low management levels”. The last change (was not accredited by the General People’s Committee of Industry²⁴ but has been used by the AC) in the organizational structure was implemented in 2009. However, many modifications have happened in the formal company structure since that time without approval from the Ministry. These include:

- The internal auditing office was in the middle management, whereas in the last modifications in the organizational structure it became in the senior management and follows the board of directors. Furthermore, it has a control of all the departments in the company.
- Reducing the offices of the senior management to 4 offices in the current organizational structure rather than 6 offices in the previous organizational structure and the establishment of a new office for planning systems and quality processes.

²³ The Financial Consultant of the AC has held many positions in the AC (e.g., the head of internal auditing, the head of accounting and the balance sheet and the head of planning and research).

²⁴ The General People’s Committee of Industry is the Ministry of Industry (currently).

- The establishment of the strategic planning administration which consists of three departments (new projects department, strategic planning department and information technology department).
- Merging the industrial security department with that of the human resources to become one administration called “the human resources and industrial security general administration” headed by one manager. Also, this general administration is divided into two administrations: the human resources administration and the industrial security administration and each administration consist of three departments (see Appendix 8 for details).
- The administration of the quality control has become one of the administrations that follow the general administration of production in the current organizational structure. In addition, this general administration has other administrations, such as the feeding factories administration, the cabs and chassis manufacturing administration, the bus production administration and the trucks production administration, and each one of these administrations comprises many departments (see Appendix 8 for details).
- The separation of financial management and planning management and the establishment of the general administration of financial operations in the new organizational structure. This administration includes three departments (the costs and business control administration, the management of accounting, the financial administration) and each administration includes different departments. According to the new organizational structure, the costs and control administration has been divided into three departments rather than one department as in the past. These

departments are the budgeting and reporting department, the industrial, research and development control department and the overhead and commercial cost control department.

- In addition to the existence of the customer services department, two separate administrations were established: the administration of sales and the administration of marketing instead of one administration headed by a manager as in the past. Each one of the three administrations consists of independent departments (see Appendix 8 for details). Furthermore, the three separate administrations are affiliated to the general administration of commercial operations.
- The establishment of a big administration called “the supply chain general administration”. This administration comprises two administrations (the purchasing administration and the logistic administration) and each one of them comprises many departments (see Appendix 8 for details). In the previous organizational structure, the purchasing administration was affiliated to the general administration of commercial affairs.
- The expansion of the general administration of technical affairs into three administrations: the maintenance administration, the research and development administration and the technological administration instead of two administrations (the technical services administration and the materials administration). Each one of these three administrations comprises three departments (see Appendix 8 for details).

6.6 Management Accounting and Control Systems

According to Libby and Waterhouse (1996, p. 149), there are five components of the management accounting and control systems (MACS)²⁵, which are: planning systems, controlling systems, costing systems, directing systems, and decision making systems (see also Waweru et al, 2004, p. 703). This section discusses the main MACS and sub-systems that exist in the AC which are as follows:

6.6.1 Planning Systems

The AC's planning sub-systems consist of the budgeting system, operations planning (production) and strategic planning.

6.6.1.1 Strategic Planning System

Some of the interviewees pointed out that the strategic planning is a new planning system that has been implemented in recent years. For example, the Director of Strategic Planning stated that there has been growth in the planning sub-systems in recent years especially in the strategic planning system. Strategic planning, which is concerned with a long-term rather than a short-term plan was implemented in April 2009 in the AC. The strategic planning implementation only took place in April 2009 even though the idea was first conceived in 2007. The AC is therefore required to prepare and submit at the end of each year its five-year strategic plans. The researcher will provide more details in Section 6.7.1.1 about the strategic planning as being one of the new systems in the AC.

²⁵ Appendix 4 shows the main MACS and sub-systems.

6.6.1.2 The Estimated Budget

The majority of the interviewees stated that the estimated budget is one of the planning systems that has used in the company since its inception. For instance, the Director of Costs and Business Control stated that the annual estimated budget for each year will be prepared according to the targets of the production for the coming year as it is now based on the study of the market in order to determine the actual cost prices and to compete with the market. The circumstances have particularly changed after the revolution of February 17th, 2011 from the monopolist market to an open market. The targeted quantities are now based on the study of the market of customers and clients as well as the knowledge of the needs of the market. For example, the costs administration and the sales department have a special programme for how to prepare the target as well as other departments to participate in the preparation of the estimated budget. Then, the data are referred to the administration of costs and all relevant departments in the AC. After that, the administration of costs will have to prepare the estimated budget and refer it to the top management or the Board of Directors to take the necessary decisions and actions. The annual budgets are prepared for all the company's activities. The actual production is matched with the estimated production and all divergences are calculated and taken into account in order to avoid them in future plans.

The Director of Costs and Business Control also said that the estimated budget has been established according to regulations and laws of the Libyan state and more particularly the Ministry of Industry. However, the Director of the Internal Auditing argued that there are some shortcomings, such as the emergence of negative deviations between the estimated and

actual data for sale and expenditure in some budget items. Also, the shareholders or owners and suppliers are buying on credit.

6.6.1.3 Operations Planning (Production)

According to some of the interviewees, there has not been changed in the operations planning. The Director of the General Administration of Production explained that there are four operations for the production administration in the AC:

- The process of achieving the production of trucks and buses through the following points: (1) achieving the targeted production plan by 100%; (2) the provision of the productive supplies on time and without shortcomings; (3) comparing the production of the first half of the year with that of the second half of the year; and (4) the preparation of a monthly report including the charts and tables on the progress of the production process in the administration and this report should be submitted to the General Manager of Production, explaining in the report the production that has been achieved, the operating rates and the number of un - worked hours.
- The planning process to achieve products as follows: (1) the implementation of all work orders issued by the logistic administration by 100%, and (2) evaluating the performance of the planning process to achieve products.
- The process of the discrimination, deliberation, packaging, storage, protection and delivery through the following steps: (1) discriminating the products in terms of the compliance with the specifications and protecting these productions by putting them in the specified arena for the production before being delivered in good condition and

in compliance with the specifications; and (2) evaluating the performance of the discrimination process as well as the deliberation, packaging, storage, protection and delivery.

- The process of controlling and measuring the products: (1) matching the materials used in the production with the specifications and instructions in force in the company and for each type of the existing materials; and (2) evaluating the performance of the control process and measurement of the products that are inspected by using the self-examination cards.

6.6.2 Controlling Systems

The General Director of the Financial Operations stated that the controlling systems provide all the information required and in most cases cover all plans and develop appropriate decisions. He also said that the managers of administrations are evaluating the importance of the controlling systems in the AC through periodic reports, the sudden inventory for stores and comparisons that are done regularly each three months. On the other hand, the Director of Purchases and the Head of the Department of Direct Materials Purchasing mentioned that the controlling systems in the AC did not provide all information in the past, because decision-making was only a prerogative of the former General Manager²⁶ of the company.

One of the costs accountants argued that the controlling system in the administration of costs is the control of materials (raw materials - semi-processed materials - final production) in terms of prices and quantities. He also said that at the beginning of the establishment of the

²⁶ The Former General Manager of the AC has been changed in 2012.

company, it used to hire some experts to develop methods of accounting and managerial control. Another costs accountant in the same department has explained the controlling system in the cost administration by saying that:

“the controlling of materials and their application is happening according to the documentary cycle. In a sense, when we are preparing a class of items (the varieties); all the documents must exist in front of us in the costs administration. In case these documents are not available, we ask the relevant departments in the company to bring them. Thus, we can determine the problems and the indicators for the general administration in order to make a decision”.

Furthermore, in recent years, some new controlling sub-systems have taken place in the AC. These controlling sub-systems consist of: the quality management system depending on ISO 9001 standard and the measurement of performance in terms of customer satisfaction. The following sections will explain these sub-systems:

6.6.2.1 Quality Management System

There is a formal written description of the quality management system (International Standard- ISO 9001: 2000) at the administration of quality control. This system has been implemented in the AC in 2004. This International Standard specifies requirements for a quality management system (QMS), where an organization: (i) needs to demonstrate its ability to consistently provide products that meet the customer satisfaction, the applicable statutory and the regulatory requirements, and (ii) aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to the customer, applicable statutory and regulatory requirements. Furthermore, the adoption of QMS should be a strategic decision of any organization. The design and implementation of an organization's

QMS is influenced by: (a) its organizational environment, changes in that environment and the risks associated with that environment; (b) its varying needs; (c) its particular objectives; (d) the products that it provides; (e) the processes it employs and (f) its size and organizational structure. The QMS is one of the new MACS that have been introduced in the AC. Therefore, more details will be given later in this chapter regarding this system (see Section 6.7.1.2).

6.6.2.2 Measurement of Performance in Terms of Customer Satisfaction

The majority of the interviewees stated that measurement of performance in terms of customer satisfaction is one of the new controlling sub-systems that have implemented in recent years. This strategy toward the customer is evidenced by the questionnaire results, as the customer services have been significantly improved in the studied company. Therefore, the researcher will provide more details regarding this system in Section 6.7.1.3 as being a new system.

6.6.3 Costing Systems

The costing system has been available when the AC was established in 1976. In the beginning of the establishment of the company, the costing system was prepared by some Italian experts in accounting, as well as some Egyptian accountants. The costing system was also compulsorily imposed by the General People's Committee of Industry (the Ministry of Industry). In the past, therefore there was a coercive pressure on the Libyan industrial companies by the General People's Committee of Industry (the Ministry of Industry) to adopt the costing system during the 1980s. The hiring of experts from abroad resulted from the

absence of national accountants, who were qualified for the preparation of such systems. At that time, Libyan companies emulated each other in utilizing experts from out of the country and the Libyan government had been encouraging such procedures. Later on, the company had relied on the local accountants who are graduated from the Libyan universities, department of accounting. In addition, the company was relied on the manual methods in the costing system in the past. In the late 1980s and early 1990s, the company has changed this method to rely on the computer systems in the costing system, but the manual methods were also used in the company.

Nevertheless, the Director of Costs and Business Control argued that there has so far been no sense of responsibility by employees in the AC as it is only through insisting upon them more than once that they give information to the administration of costs. Sometimes, the information requests are handed in a friendly way. Furthermore, sometimes the staff at the administration of costs is forced to send correspondences in order to get the required information. This may be due to indifference and a lack of understanding. He also stated that the Administration of Costs is the main administration and should, therefore, be reliable for the General Administration of the AC in the decision-making process. Other departments such as the Strategic Planning Department are planning to provide information, but the most important role is that of the administration of costs in terms of giving indications of the financial and economic situation of the company. In other words, the administration of costs is a container of all incoming and outgoing data from the company. The Director of Costs and Business Control continued and explained by saying:

“when the data are flowing easily, without pressures and without marginalization, to the administration of costs, therefore, they will be available in front of the Board of Directors which in turn helps the state in

providing jobs for people and also the state bears with the company a part of the burden of costs and thus enabling it to compete in the market. According to my view, the costs administration is the lifeblood for any project, irrespective of the AC. For that reason, we need to educate the company's employees and managers through lectures and seminars in order to be familiar with the importance of cost accounting”.

In recent years, however, some changes have taken place in the AC. The Head of Overhead and Commercial Cost Control Department argued that this started to change in the administration of costs at the beginning of 2010, but because of the events of the revolution of 17th February 2011, the economic and financial condition of the company as well as the volatility in the political situation of the country, and that of the company itself, the latter does not have stability in its administration. This led to the blocking of expansion and development in the administration of costs in the AC. Nonetheless, in 2012, after the recovery, the company saw a considerable change in the administration of costs. The company has introduced a new technique, called direct allocation of marketing costs. In addition to the expansion in the methods and feeding data and the introduction of other control methods, such as the continuous inventory each month for controlling the stores of the company and the annual inventory. The disclosure of information has now become far better than it was in the past, because the administration of costs has got access for information from several administrations such as the marketing administration and the sales administration. These data are in the form of reports and recommendations that are presented to the General Administration of the company. The following sections will discuss the costing sub-systems that have been applied in the administration of costs and are as follows:

6.6.3.1 Direct Allocation of Manufacturing Overhead

One of the cost accountants said that the statement of the final costs of the product is prepared by calculating the direct and indirect costs of manufacturing. The final cost of the product includes many expenses such as the production taxes and customs. He also said that the AC sometimes forgoes importing spare parts that are involved in the production of trucks, such as the spare parts in the cabins of trucks; the company sometimes does not want to import these parts from the supplier. There are also other parts of the truck's cabins that are essential and indispensable; therefore the company manufactures these parts. In the case of manufacturing, the accountants will prepare additional cost for the manufactured parts which are essential to the product. In the case of import, the administration of costs calculates the cost of import. This occurs through the administration of inputs in order to reach the goal, which is the reduction of the cost. Therefore, the company determines the additional costs for both. Then, the top management compares them in order to determine which is better, and whether the company can manufacture this piece at the lowest cost or import it from abroad.

The Costs Accountant went on to say that:

“We must know the implications of the manufacturing process, because the company may need the machinery and capital equipment in order to manufacture products, thus this is a heavy burden on the cost, and therefore there will be capital costs and that is a reason that makes the company, sometimes forgoes the manufacturing process. For example, the company may need 6000 pieces and which do not cost 10 Euros per year and thus when the company calculates the cost, it will find that when it imports spare parts from abroad, it is better than bringing the machinery and capital equipment to manufacture them. Thus, the product will have to bear a burden from the cost of depreciation of machinery and in addition to that you may need a feasibility study to know when the value of the project will be recovered”.

6.6.3.2 Direct Allocation of Marketing Costs

The Head of Overhead and Commercial Cost Control Department argued that marketing includes all the activities that the AC needs in order to transform the purchasing power of the consumer to the effective demand. These activities include all issues that are related to the study of "consumer" and its needs. Marketing costs at the AC include, for example, the costs of advertising and sales promotion, the costs of credit and collection, the marketing director salary, the cost of direct selling (e.g. telephone), and market research and product development costs. He also pointed out that the Director of Marketing plays an important role in taking production decisions / marketing and helps in the development of a plan which includes all areas of the operating cycle. Arguably, this system is new within the company. It was implemented in the AC in 2012 due to the presence of new competitors in the domestic market. During Gaddafi's regime, the products in the Libyan market were monopolized by the AC, i.e., there was no competition with other organizations before the Libyan revolution 2011. Moreover, the Head of Overhead and Commercial Cost Control Department said that:

“there is no culture of competition at the Libyan state level or the level of national companies in the past. The only company which was specialized in the industry of trucks and buses is the AC, where there are the operations of: purchasing; manufacturing; maintenance; and marketing, which are achieved without the help of the other companies”.

The direct allocation of marketing costs is one of the new systems that have been implemented recently in the AC; therefore the researcher will give more details in section 6.7.1.3 about this system.

6.6.3.3 The Pricing System

The majority of the interviewees stated that the company has been applied the pricing system since its inception. Nonetheless, some changes in the pricing system have taken a place as a response to the change in the costing system, i.e., the addition of the marketing costs in 2012. According to the government policy concerning the prices, the prices of products in the public industrial companies must cover the cost of production plus a small profit margin of between 5% and 15%. The prices of trucks and buses are determined by the AC after approval from the Ministry of Industry. The margin of profit is determined by the General People's Committee of Industry (currently is called the Ministry of Industry), while the cost is determined by the AC, which is accepted by the Ministry of Industry. The General Director of Commercial Operations stated that "the pricing system is based on the actual expenses, for example, when the cost accountant wants to determine the cost of a product or a particular piece; he will depend on actual expenses that are in the bills".

In addition to the above, the General Director of the Financial Operations argued that the company determines the cost of the acquisition of assets (the direct costs and indirect costs) using a complex calculation, and this is due to the size of the company's activity which contains many stages, including the manufacturing process, assembling, marketing, maintenance, and purchasing, and these operations need to be accurate. He also said that the market analysis department is new within the company and lacks some of the steps or methods to be followed in the competition by the company's products. Therefore, when the company depends on the administration of costs to study the conditions of the market in terms of prices offered in the market and the costs of the production, it will improve the

conditions of workers within the company socially and economically, and then it can compete in the market.

6.6.4 Directing Systems

The directing sub-system that exists in the AC is its incentives system. This system will be explained as follows:

6.6.4.1 The Incentives System

The incentives system has not been changed in recent years. This system is specifically referred to as the bonus payments, such as reward for workers, subsidies and advances or loaning. From the internal bylaws of the company²⁷, incentives are financial and moral advantages which are determined by the company management and paid on a voluntary basis, i.e., by the will of the company and is not imposed by any custom or law. These incentives are paid in order to: (i) motivate the employees to demonstrate their loyalty to the company; (ii) improve the quality and quantity of production; and (iii) maintain the company's possessions, and an increase over the wage and salary for work done. Also, the employee is not allowed to demand an increase in this incentive or ask for it if it is not given to him / her. According to the regulations of the company, there is the administration of human resources which is responsible for following up the payment of incentives as follows; (1) the Director of Human Resources is responsible for overseeing the application of this procedure; (2) the Head of Job Assessment and Salaries Department is responsible for evaluating the jobs and salaries as well as the follow-up and implementation of this

²⁷ The internal bylaws of personnel affairs describe the mechanism for the disbursement of incentives for employees in the AC. It also regulates work and determining the rights of the employees.

procedure; and (3) the Head of Recruitment and Appointment Department is responsible for providing data and information required to implement this procedure. In addition to the above, the regulations of employees' affairs explain the cases for getting the financial subsidies, advances and rewards (bonuses) as follows:-

Financial subsidies

According to the company's internal rules concerning the incentives, the AC gives financial subsidies in accordance with the following cases:

- In the case of the death of the worker (man or woman); the company gives financial assistance that stands at LD 5,000 for his / her family.
- The company gives LD 2,000 for the employee (man or woman) in the case of death of his / her father or mother, and also in the case of death of his wife or her husband.
- In the case of the death of one of the sons / daughters of the worker (man or woman); the company disburses LD 2,000 for the worker.
- In the case of the employee's marriage (man or woman), the company disburses LD 1.000 for the employee.
- In the case of the worker injury (an accident) while carrying out his / her work, whether inside or outside the company; the company pays all the expenses for his / her treatment.

- In the case of the death of the married worker who has children, the company will continue paying his / her salary according to the last salary received before the death and for a period of 18 months, but in the case of death due to performing his / her work (the work injury); the company will continue disbursing the salary for 3 years on the basis of the last salary given to him / her before death.
- Subsidy is given only once in cases of marriage or the death of husband or wife.

However, there are conditions for giving the subsidies for the employees:

- If he or she is working in the company for more than one year. In addition, taking into consideration the periods of absence: (i) If the period of absence is (0 - 5) days, the company will give him / her a full subsidy; (ii) if the period is (6 - 10) days, the company will pay him / her about 50% of the value of the subsidy; and (iii) if the period of absence is more than 10 days, the company will not give him / her a subsidy, except in cases of the death of a parent or spouse.
- In the case of the death of one of his / her children, the company gives a subsidy to the employee in accordance with the following cases: (i) if his / her child is aged less than one year, therefore the employee will be given 50% of the value of the subsidy, and with taking into account the period of absence; (ii) if his / her child is aged more than one year, therefore the employee will be given a full subsidy, and with taking into consideration the period of absence.

Advances (On Account)

From the written rules, the AC gives advances in accordance with such cases as; treatment, buying a car, marriage, buying furniture, building or maintenance of house, buying land, and other reasons that can be accepted by the company. Moreover, the value of the advance for the employee is no more than LD 6,000 in all cases, and that is deducted from the monthly salary by 15% of net salary. Also, the employee can pay premiums for covering the value of the advance at a rate higher than indicated above according to his / her request. Nonetheless, there are conditions for giving the advances for the company's employees:

- Advances will be given for employees who are working a period of more than two years in the company.
- It is not permissible to take two advances at the same time, except in cases of extreme treatment.
- The existence of a guarantor from within the company and this guarantor does not guarantee another employee at the company at the same time.
- The employee (Guarantor) agrees in a pledge to pay all due premiums in all cases.
- The employee has not been absent for a period of more than 5 days in the previous 12 months prior to ordering the advance.

Rewards (Bonuses)

There are three types of rewards in the AC: End of work reward; reward of temporary committees and bonuses to encourage employees. In relation to *the reward of the end of work*

in the company, the employee deserves such a reward if his / her relationship ended with the company for one of these reasons: the case of retirement, death, the moving to another organization; if his health does not allow him / her to continue to work; if he / she requested to resign from the company. This bonus will also be paid on the basis of one month's salary for each year of actual work of the employee in the company; therefore it is calculated on the average of net salaries of the last 24 months during which the relationship between the employee and the company ended. However, there are some cases in which the employee does not deserve taking this bonus, such as dismissal from work; terminating the contract and resignation in order to avoid punishment.

In relation to the *reward of temporary committees*, the members of the committee formed for the temporary tasks are given a reward that is not less than LD 200 for each member and is not more than LD 3,000 with the condition that the committee carries out its business outside the formal office hours. Also, the General Manager of the AC issues a decision for determining the value of the bonus for these members. In regard to the *bonuses that encourage the employees to work*, the company pays a bonus to the employee in addition to his / her regular salary and as a result of his / her exceptional efforts. However, there are conditions in order to get this type of bonuses, such as the development of work, increasing the production or sales, reducing the cost and time, improving the quality of the product and finally the period of absence for the employee which does not exceed 5 days in the previous 12 months to ordering the bonus.

6.6.5 Decision-Making Systems

The AC uses the reporting system in order to make decisions regarding all the issues that are related to the company. This system will be explained as follows:

6.6.5.1 Reporting System

All the reports and forms or models are prepared in accordance with the international standard (ISO 9001: 2000) in all departments of the AC. This International Standard specifies requirements for a quality management system (QMS). The reports also included data and information related to financial indicators and non-financial performance evaluation. One of the Internal Controllers said that the Internal Auditing Department is responsible for reviewing all the financial affairs in the company. It has also a basic duty to prepare the monthly, quarterly as well as the final report (annual report) which concerns the balance sheet at the end of the fiscal year. These reports constitute part of the process in the company's decision-making. In addition to the above, he stated that the current administration has a responsibility to report on its activities, especially the technical aspects. All these reports are collected by the top management, which refers them to the General Assembly in the form of a single report. This report is called the General Report of the Company's activities and discusses the difficulties facing the company and the possible solutions for them. Therefore, the General Assembly will discuss any new items on the agenda. The key concern of the General Assembly is to ensure the profitability of the company.

6.7 Changes in the AC's Management Accounting and Control Systems

As explained previously in chapter three, Sulaiman and Mitchell's (2005) typology of change in management accounting (MA) demonstrated that there are five various dimensions of change:

1. Introduction of new techniques or systems as replacement for existing ones.
2. Introduction of new techniques where no management accounting previously existed.
3. Modification in the management accounting information or outputs.
4. Modification of the technical nature of a management accounting system.
5. Removal of a management accounting technique or system with no replacement.

Two of these five management accounting change dimensions were discovered in the case study of the company, AC. These two dimensions are: (1) the introduction of new techniques where no management accounting (MA) previously existed; and (2) the modification in the information or output. They are explained in the following sections.

6.7.1 Introduction of New System where no Management Accounting previously existed

This dimension involves the extension of the management accounting system by the introduction of new systems to the AC. These systems are: strategic planning; quality management system (QMS); measurement of performance in terms of customer satisfaction and direct allocation of marketing costs.

6.7.1.1 Strategic Planning System

Shortell et al (1990) defined strategic change as the extent to which a firm is moving along the defender and prospector continuum. In the case of the AC, there were no formal strategic planning systems operating in the AC before 2009. However, in April 2009, the strategic planning has been implemented as a new system in the company as a response to the economic reforms that happened in recent years. The Director of Strategic Planning stated that the company hired some professionals and experts in the preparation of strategic planning. He also emphasized that the company must adopt strategic planning processes to thrive in the newly competitive and commercial environment.

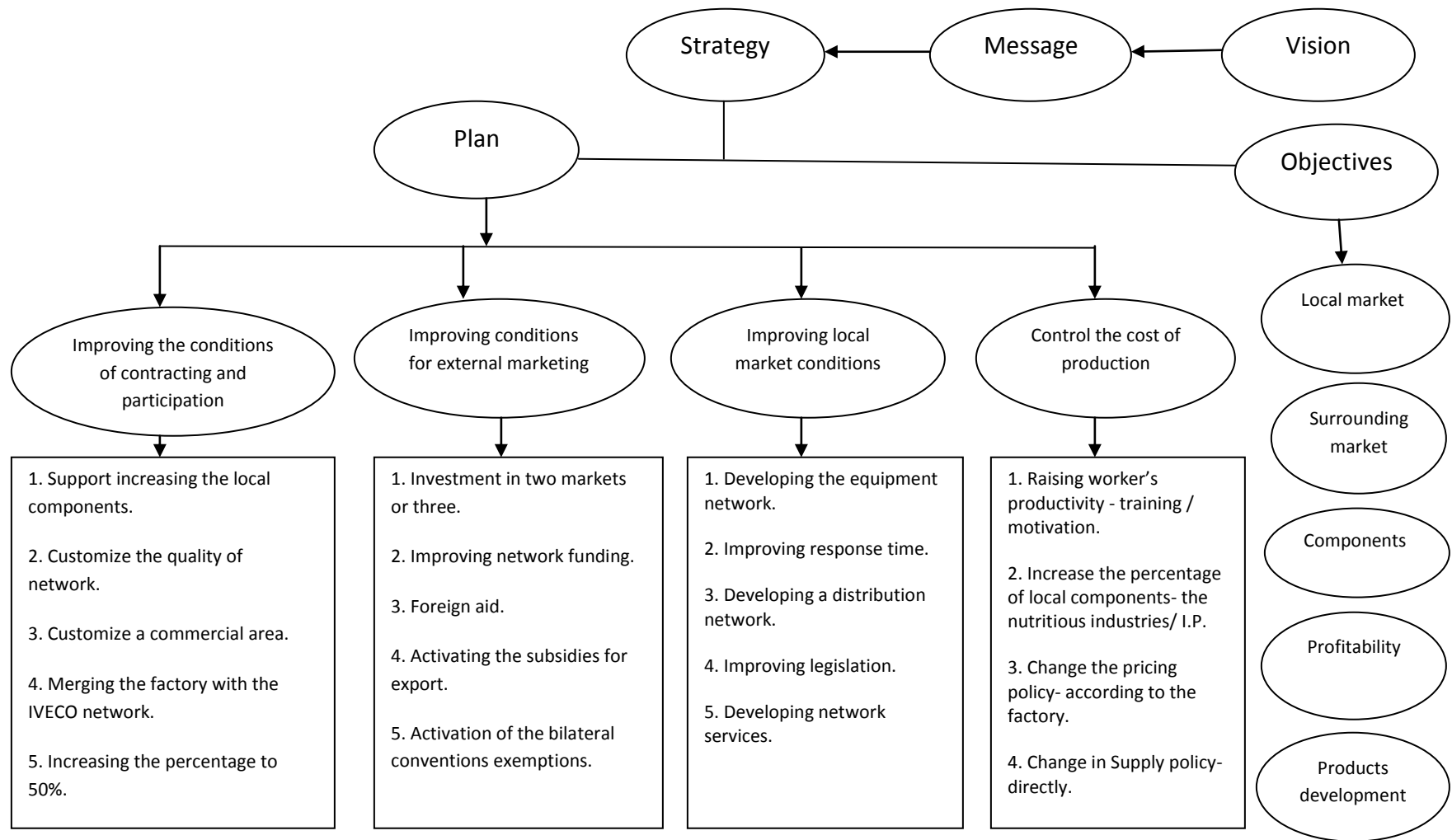
According to jobs description at the AC, strategic planning department is responsible for overseeing the works of strategic planning at all administrations, departments and offices as well as in order to be uniform down to the company's overall strategy. For more details, see Figure 6.1 below which shows the framework of the strategic planning for the period 2009-2014. Furthermore, the department of strategic planning has basic duties and responsibilities and can be summarized as follows:

- Coordinating and overseeing the daily works of department's employees and the distribution of work that they want to do, and controlling and reviewing what has been achieved.
- Contribute to the preparation and development of the strategic plan of the company and suggest appropriate policies and programmes to implement them.

- Analyzing of data and information and developing a proposal of a vision, mission and strategy of the company.
- Planning and management of the proposed projects starting with the feasibility study stage and up until their effective implementation.
- Studying and proposing projects that provide added value for the company's products and achieve the objectives of the company and its strategies.
- Determining the basic purpose of the project which is the subject of study in order to achieve the overall strategy of the company and informing the top management about this project. In addition, the preparation of the estimated budget for the projects to be implemented.
- Planning and scheduling activities and processes and the times required to implement the project in detail.
- Follow-up all stages of the project and negotiate with suppliers whenever the need arises.
- Determining the risk of economic and technical project and the ways to avoid and resist them.
- Follow-up the position of implementation of the project through good preparation for the implementation.
- Ensuring the application of the necessary activities to achieve the goals and take the necessary corrective actions.

- Working on the development of resources and processes that underlie the project.
- Doing special administrative work for the department, such as the follow-up of attendance, the departure of employees, granting vacations and permissions and evaluating performance.
- Consider the latest scientific developments in the area of specialization and take advantage of them. Furthermore, the preparation of procedures governing the functioning of the department and following them up and updating them as necessary.
- Adherence to industrial security systems and putting regulations in force in the company. In addition, adherence to the application of systems and procedures in force in the company.
- Preparing periodic and monthly reports for the departments' works and presenting them to the administration.

Figure (6.1) shows the Framework of Strategic planning at the AC



Source: *Strategic Planning Administration at the AC.*

From the written documentations, the researcher will explain the vision, message and strategy of the AC that are mentioned in the above figure (6.1) as follows:

❖ **The Company's Vision**

The vision of the AC is to become the largest company in the region of North Africa and Sudan in the fabric of global value network in manufacturing trucks and buses, along with manufacturing their components, and also be one of the suppliers in manufacturing the semi-manufactured components for IVECO.

❖ **The Company's Message**

The company's message is to offer distinct added value to their customers; the work values which make producers proud; increasing the growth of partnership with its suppliers; and be safe in the surrounding environment, thus contributing to the development of the Libyan society.

❖ **The Company's Strategy**

The strategy of the AC is to enable the company to maintain its position in the market, and prepare for the acquisition of the ability to face the consequences of the winds of change, and achieve growth under the competition, and be a stronger competitor, which leads to achieving the vision and mission of the company.

6.7.1.2 Quality Management System

Introduction of the QMS (ISO 9001) is one of the changes that have taken place in recent years. Also, although the company had a quality department before 2004 in order to

concentrate on production quality, however the company had not been applied ISO system in the past. In 2004, ISO has imposed the QMS on the company, which led to changing the style of reports from narrative reports (about 30 or 40 pages) to reports that take a particular form by using charts and statistical methods. Previously, each administration or department of the company was presenting its report in its own way and did not have a specific form to present it. The new style of reports is required to do comparisons to measure the performance of the current year with last year as well as for six months to see the rate of performance. This technique was introduced in the year 2004. The focus of this new technique was on the regulatory aspects, but the financial aspects were outside the scope of ISO. However, the researcher has observed that ISO certificate was not renewing. The Director of Quality Control agreed with this researcher's observations by saying that:

“Given the circumstances of the war that happened in Libya in 2011 due to the uprising of 17 February against Al-Gaddafi regime, we did not renew the ISO certificate, but the AC will renew this certificate in the near future, especially the conditions of Libya in 2012 are better than before. Also, we expect that the next years will be much better”.

6.7.1.3 Measurement of Performance in Terms of Customer Satisfaction

This system is also one of the controlling systems that have introduced to the company in recent years, particularly after the Libyan revolution in 2011. Some of the interviewees admitted that little attention had been paid to customer satisfaction in the past. The AC was a monopoly company and was selling its goods according to the orders of customers. However, this situation has entirely changed recently due to the competitive market conditions. The AC has implemented some extra services aiming to satisfy customers. For instance, The Director of Marketing pointed out that the Department of Market Analysis is responsible for preparing

questionnaires in order to get opinions from customers concerning the quality of services provided by the AC. For instance, the welcoming within the company, customer satisfaction for procedures during the sale, time and punctuality which set to receive products, type of product, customer preferences, prices, maintenance services after the sale, technical specifications of the product, etc. Also, this model is applied in accordance with the ISO 9001 standard.

6.7.1.4 Direct Allocation of Marketing Costs

As mentioned earlier, the costing system has been available when the company was established in 1976. However, since that time the company had not been relied on the marketing costs, because the market was monopolist. But, this situation has changed as a result of the increasing competition with companies in private sector. Consequently, The AC has made a change through introducing the direct allocation of marketing costs system to the costing system. This technique was implemented in 2012 as a result of the increasing competition. Therefore, the company is currently operating in an open market (the competitive market) and not in the monopolist market (the closed market) as before. One of the Costs Accountants stated that this type of change is a reality that has been imposed on the company. So, this technique is currently under practice in the AC. In the past, the production of trucks and buses was monopolized by the Libyan state, but now there are several competitors (other companies) in the same specialty, sales and in the same fashion. In addition, the company has been directed to contain the social aspects. In other words, the company was used to contain people through creating work opportunities and was not meant to enter competition or the market. The General Director of Financial Operations argued that

the Libyan state has now entered a new phase of reconstruction and construction; therefore these things are needed for the company's products, i.e., the market is thirsting for the company's products. Accordingly, this change in the costing system has been taken into account in the preparation of pricing system in the company.

6.7.2 Modification in the Management Accounting Information or Outputs

According to Sulaiman and Mitchell (2005), this type of change occurs either by adding to or modifying the budget based information or other management accounting outputs. This dimension also relates to situations where there are no new management accounting techniques involved, such as the estimated budget and the reporting system in the AC.

6.7.2.1 The Estimated Budget

In the past, the estimated budgets for each year were prepared to be based on production, more or less depending on the design capacity. Thus, the AC has to prepare the estimated budgets for the following financial year. But, in recent years, especially after 2011 this situation is completely different, because the estimated budget is now based on the targeted production, as well as the study of the market in order to determine the actual cost prices and to compete with the market. Therefore, the Marketing Administration plays a key role in the budget planning process. This planning process takes into account all the expenditures that will be required for the coming year. Some of the interviewees mentioned that there are a number of the changes in the estimated budget as a result of competition and changing in the Libyan government's laws and regulations, especially in recent years. For instance, the Director of Costs and Business Control pointed out that the supplies provided from the

foreign partner (IVECO) are one of the items that have been changed in the budget, i.e., importing the semi-finished materials in order to be ready for installation rather than importing them disjointed. Consequently, the change in the estimated budget will be based on the existing data and information. He asserted that by saying:

“When we are preparing the estimated budget, it should be based on information that shows the following items; the supplies obtained from the foreign partner, i.e., materials that come from the partner in order to be manufactured in the AC, part of the materials come disjointed and other materials will be manufactured within the company. All these things will be taken into consideration in preparing the estimated budget”.

The Director of Costs and Business Control also argued that the company currently has a financial crisis and to get out of this crisis; the company has changed the policy of supplying, i.e., the AC brings or imports the materials almost ready. This is a new direction for the AC. Changing the direct supplying policy has advantages and disadvantages. Examples of such advantages include the sales and the installation process that must be done quickly and at the lowest cost. Also, the cost of depreciation and other industrial costs will be decreased. However, it has disadvantages, such as the social impact. In other words, the disjointed materials or partial assembling will need a simple manpower, for example, 200 employees out of the 770 employees, but what about the other people? However, if the products are manufactured as in the past, this will create jobs for people. In this case, the Libyan State or the Ministry of Industry should bear a burden from the company through the creation of jobs for people.

6.7.2.2 Reporting System

In the past, the reports were narrative in all departments of the company, but they have changed in recent years. The change has taken a place in all departments' reports as a result of introducing the ISO system to the company in 2004. After that time, the researcher has observed that the reports were prepared in consistent with international standard (ISO 9001). For example, from reading the written reports, the researcher found that the production administration's report of 2010 is consistent with the ISO system, whereas the production administration's report of 2003 is not consistent with the ISO requirements. Put differently, the production administration's report of 2010 includes the tables and graphs regarding the activity of production administration during 2010. These tables and charts show the comparison between the targeted production and the actual production, while the production administration's report of 2003 was written in narrative way.

6.8 Factors that Caused Changes

The preceding section illustrated two management accounting change dimensions discovered in the case study of the company, the AC. The first change dimension was the introduction of new MACS in the AC where no management accounting previously existed, such as a strategic planning system, a quality management system and a direct allocation of marketing costs. The second change dimension was a modification in the management accounting information, such as the estimated budget and the reporting system. The two dimensions demonstrated that management accounting is not a homogenous phenomenon. Accordingly, the causal factors of change may also be projected to differ. The next sections identify the causal factors that have led to these management accounting change dimensions in the AC.

6.8.1 Institutional Factors

The institutional factors that caused AC's management accounting systems to change can be explained in the following sections:

6.8.1.1 The Political Pressures and Organizational Legitimacy

The Financial Consultant in the AC mentioned that the previous policy of the Libyan State under Al-Gaddafi's rule was a failed policy. This policy focused on the outside world and served his foreign policy. Al-Gaddafi's viewpoint was primarily focused on the political rather than the economic direction. For instance, constructing a factory for trucks and buses or a factory of tyres or a project of the industrial river (the Great Manmade River) in order to show to the world that he made these things, i.e., in order to build a glory and pride for himself. In the past 42 years, the Libyan economy was driven by this policy, particularly in the period from 1970 up to 2011, and this represents a big problem. However, in other countries, such as the USA, the UK, and France, we find that the economy is driving the policy. Therefore, all of these countries are keen on their economic interests in the first place, for example, the establishment of relationships with Libya or Saudi Arabia, because they have the finest types of oil.

The Financial Consultant emphasized that by saying "*when politics leads the economy in any country that means the economy will fail, and it is better, the economy leads the politics*". He also stated that one of the previous political decisions of Muammar Al-Gaddafi is an attempt to establish the AC in the Aouzou²⁸ region in the south of Libya in order to prove to the

²⁸ Aouzou is a region in the south of Libya which also represents the borders of Libya and Chad.

world that Aouzou is a region that belongs to Libya. But, fortunately, the officials in the Libyan state did not agree with this view and said that this view has no correspondence with reality. In addition, designing small vehicles in the AC was based on political decisions of the Libyan government. In the past, the company produced small vehicles for the Libyan military, which are approximately 10 % of the company's production in accordance with the political decisions. However, despite this small percentage that was based on this improper political decision, the company suffered enormous losses estimated in millions of LD. All these things that happened in the past adversely affected the MACS in the company. But, at the present time and after the revolution on 17th February 2011, conditions are still not clear. For example, the Government of Abdul Rahim Alkeep did not have a clear political vision. As for the current government (the new interim government) which is led by Prime Minister Ali Zeidan, we do not know if whether or not it will conform to the principle that economy drives policy. If so, the interim government will be successful.

The Head of the Direct Materials Purchasing Department supported the view that political decisions have adversely impacted on the MACS in the AC in general. He argued that:

“everyone in Libya knows that the previous Libyan state could close or open a project at any time. What are the reasons or goals to open it or stop it? Or was there a feasibility study for this project? We do not know. All of these things are not known and it was just the personal whims of the officials who were leading the Libyan state in Al-Gaddafi's regime. Also, we do not know if there was a political or economic objective of the establishment of this project or whether there was a plan for the establishment of the AC in the past years. Therefore, arguably, political decisions have had a significant impact on the company in general and the management accounting systems in particular”.

In addition to other political pressures that faced the company, this was the period of the siege, i.e., the embargo on Libya in the 1990s (see Chapter 2, Section 2.4.4). The isolation

enforced on Libya by the US and the UK resulted in a lack of contact with western countries, therefore, access to advances in technology and managerial issues. Libyans were unable to participate in international conferences, training courses abroad, seminars and learn about the latest innovations in all scientific areas, including innovations in accounting such as the ABC and the BSC. The Head of the Direct Materials Purchasing Department stated that the siege affected the company in terms of importing the spare parts. In other words, the company was not able to import from abroad except through other countries closer to Libya. But, the costs of these imports (spare parts) were very high. All these pressures negatively affected the company in general as well as on the market.

Furthermore, the change of the Libyan political system²⁹ in 2011 has created competition between Libyan companies. Therefore, that led the AC to introduce a new system called the direct allocation of marketing costs (see Section 6.7.1.3) as a result of the local competition.

The Director of Internal Auditing asserted that by saying:

“In the past, the manufacture and sale of trucks and buses were monopolized by the AC in Libya. In other words, the Libyan citizen cannot buy a truck or a bus from outside Libya. But, after the revolution of February 17th, 2011, there is openness in the local market, i.e., there are now individual competitors in the market who have private companies. These companies bring the used trucks and buses from outside Libya and sell them to citizens at cheap prices”.

6.8.1.2 The Libyan Government’s Laws and Regulations

It can generally be said that the issuance in Libya of laws and regulations continuously and unexpectedly affected significantly the activity of the company in general and the MACS in particular. The Director of Accounting argued that the Libyan state under Al-Gaddafi’s

²⁹ Regarding the Libyan political system see Chapter 2, Section 2.3.1 for more details.

regime issued a production tax at 10% on the company's products in the beginning of 2000s. This tax made the company not capable to compete in the market. Similarly, the state issued a customs tax at a rate of 4% which made the company face difficulty in importing machinery from abroad to contribute to the manufacturing process. He also said that the Libyan state issued other taxes on companies operating in industry, such as the abolition of customs tax and issuing the services and the traffic tax or the transit tax. Furthermore, The Head of the Balance Sheet Department pointed out that Libya is a rich-oil country and has huge revenues and it is supposed not to impose high taxes on the industrial companies in order to get revenues to finance the state treasury. Since the AC also seeks to develop itself in order to establish a glass factory, a factory of lighting, therefore in the light of these tough laws, the company cannot develop itself for the better.

In addition to the above, the Financial Consultant argues that the unstable laws and regulations that were issued by the Libyan State in the past have had a remarkable impact on the business and accounting methods in Libya; to the extent that lawyers were using the legal expression “if not be cancelled by the state” addressing legal matters. He also said that the taxes have impacted on the cash flow statement and the budget due to unstable laws, such as imposing a production tax and a services tax in an unexpected period, i.e., imposing this production tax, etc after six months of preparing the budget. Moreover, the company has some expenses that are related to the company's activities and needs to regain debts from other companies. It also needs to import some machinery and spare parts from abroad. Therefore, these taxes are a huge burden on the company. All these things have affected the cash flow statement of the company as well as its estimated budget. For example, if the targeted production was 100 trucks, after the imposition of the tax on the production, the

target became 40 trucks. In this case, the imposed laws on the AC have led it to buy raw materials from inside Libya and importing raw materials from abroad at the rate of 40% of the trucks production. As a result of these laws, the company was forced to take loans and facilities from the banks and also pay interest at a rate of 5% and these interests were doubled and were not counted in the estimated budget.

The Financial Consultant also stated that the Managers of Administrations at the AC discussed these laws and wrong decisions with the Ministry of Industry under Al-Gaddafi's regime, but they did not reach any solutions. The reason for imposing these laws is a sovereign decision from the State.

However, after the political system in Libya was changed in 2011; the Libyan National Transitional Council (LNTC) has issued new laws and regulations³⁰. These laws and regulations have been implemented by Libyan companies, for example, the taxation system and customs fees. Therefore, this change in the tax law has been taken into account in preparing the estimated budgets in the AC.

6.8.1.3 Leading Organizations' Pressures

One of organizations that led to change in the AC's management accounting systems is the International Standard Organization (ISO). The aforementioned Quality Management System (QMS) imposed on the AC in 2004 shows that all documents in the AC be controlled according to the requirements of the QMS. The International Organization for

³⁰ The Legal provisions of the Articles 2, 3, 4, 5 in determining Tariffs on supplied goods No.48 of 2011 have described as follows: **(1)** Article 2: Determines Tariffs (customs tariff) for motor vehicles, trucks and trailers of various kinds at 10%; **(2)** Article 3: Raw materials and production requirements shall be exempted from taxes, customs Fees, and other taxes and fees; **(3)** Article 4: Production tax and consumption tax on locally produced goods and imported shall be reduced to (0%); and **(4)** Article 5: Fees of supply services shall be cancelled.

Standardization is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing the international standards is normally carried out through the ISO technical committees. The main task of these technical committees is to prepare International Standards. Moreover, the ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electro technical standardization.

6.8.1.4 Copying the Best Practices from Other Organizations

The AC is a partner with the Italian company, IVECO at 25% of the company's capital. Some interviewees pointed out that the MACS have been applied in the AC since it was established. Also, the managers of IVECO have advised the AC's managers to use them. Therefore, the AC applies the same management accounting practices that are used in IVECO, which are similar to the management accounting practices that are used in the Libyan industrial companies, such as the National Trailers Company, the Tractors Company, the Tyres Company and the Iron and Steel Company. Thus, adopting the same practices in the Libyan manufacturing companies happened according to the type of industry and market. One of the costs accountants emphasized that the Libyan industrial companies are using the same accounting systems, by saying:

“I was previously working at the Tyres Company in Tajoura before I moved to the AC. But, when I moved to it I found that the AC uses the same management accounting methods in the Tyres Company”.

This type of change came from mimetic pressure, because the organizations in the same environment imitate each other (Granlund and Lukka, 1998).

6.8.2 The Market and Competitive Pressures

It has been argued that the change in the political system has led to an increasing competition in the local market (see Section 6.8.1.1). Consequently, the competition influenced the management accounting systems to change, such as the budget, costing system and pricing system. The Head of the Overhead and Commercial Cost Department argued that the change in the Libyan business environment, especially after 17 February 2011, has had a significant impact in terms of changing the methods of control and management accounting for the better, such as measuring customer satisfaction and introducing the direct allocation of marketing costs system. The company has also reconsidered its selling prices i.e., reducing its selling prices as a result of the domestic competition. Therefore, this has had a direct impact on the estimated budget. On the other hand, this reduction in the prices also created a conflict of views between the managers in the company. He said that the top management sometimes determines selling prices without reference to the cost management team.

Furthermore, the Head of the Department of the Direct Materials Purchasing stated that unfair competition with the private sector companies has a negative impact on the company's business in general. With more explanation, he said that:

“Former managers who were working in the AC embezzled a lot of money, and then they established private companies and became the company's competitors. Those competitors have affected the company's activities in general, because they sell vehicles and spare parts at cheaper prices. Consequently, the selling prices of trucks and buses in the company have become available for citizens”.

The Financial Consultant suggested that the AC can compete in the local market effectively through introducing a new product in line with the Libyan market. For example, the company

was manufacturing trucks that weigh 10 tons, 12 tons and 18 tons, which are available in the local market. But, with the introduction of a new product, small trucks or medium-sized trucks that weigh 3 tons and 5 tons are now manufactured in order to fit the narrow streets. This will make the AC as produce and sell many of these products and therefore achieve a greater profit for the company.

6.8.3 The Managers of the Company (Power)

Some of the interviewees mentioned that the personality of managers is one of the key factors that led to the change in the MACS. For example, the Director of Costs and Business Control argued that the AC was making huge profits in the past and the Libyan State used to take a certain percentage of these profits. Moreover, the Libyan State provided the managerial and moral support for the company. But, after 2003, the company started experiencing some problems as a result of the encouraging of the State for the privatization programme, for instance, the state's abandonment of the company's support administratively, financially and morally. Furthermore, the job description and the organizational structure of the company were not accredited by the Ministry of Industry, but were merely a diligence of company's administration.

Additionally, one of the costs accountants argued that the company's rules and regulations are constantly changing by the top management which has the main role in the processes of decision-making. Also, the Chairman of the Board of Directors is an engineer and the same applies to the person acting as the General Manager of the Company who is interested in hiring engineers for the company rather than other people who have different qualifications, such as accountants. These issues therefore have made the Managers and Heads of

departments in the company do what they want. With more explanation, the Costs Accountant said that:

“In the last short period, the administration of costs revealed the difference in the prices, such as the interest rate and the rate and cost price. After that, we mentioned those matters in the explanatory memorandum that was referred to the top management of the company. This memorandum shows reducing selling prices without giving any indication of whether it was as a result of a difference in the market or customer. The concern of accountants at the administration of costs is that the reduction in selling prices leads to a reduction in the cost price. But, the top management has not taken any actions regarding this issue. Also, it has not been mentioned in the monthly and annual reports of the Company’s Internal Auditing”.

Also, from the researcher's quite lengthy stay in the company, it was observed that the General Manager of the AC and the General Director of Financial Operations were the key managers in the company and the other Board Directors had only a limited role in terms of control. The final decisions concerning any subject in the company were made by these two key people. The participation of other Management Committee members in any decision-making was very limited, because most of the company’s affairs were discussed in the General Manager Office of the Company, with discussion taking place between the General Director of Financial Operations and the General Manager of the company. Consequently, the top management of the company has a significant impact on costing system, because it sometimes decides and makes decisions without referring to the administration of costs. So, power over decision-making was used by the manager of the company and the Financial Director.

6.9 Resistance to Change

This section shows some issues that are related to resistance to management accounting change. Several interviewees pointed out that there was no major objection or resistance from the AC's managers and employees on the implementation of strategic planning, direct allocation of marketing costs and the QMS. Nevertheless, some interviewees, such as the Financial Consultant, the Director of Costs and Business Control and one of the Costs Accountants stated that there are some possible reasons to resist the development of the AC and the changing in the MACS which will be explained by some interviews as stated below:

1) The State's Laws and Regulations: The tax imposed by the Libyan state (or the Ministry of Industry) has greatly affected the estimated budget and the cash flows of the company as well as the company's liquidity. All these issues have made the company take loans, facilities and pay interest. Therefore, the value of tax has been paid by the company to contribute to financing the State Treasury in the form of revenue. The Financial Consultant said that *“through that value paid in the form of taxes and fees, the company can develop its activity and increase its production lines. But, unfortunately, when discussing this matter with the Ministry of Industry we did not find a solution to reduce the taxes and fees”*. In addition, the instability in the political, economic and security situation in the country affects the development as well as the instability of laws in the Libyan state.

2) Mismanagement and Financial and Managerial Corruption: The financial and managerial corruption in the company led to an increase in the company's debts at a very high rate. Furthermore, the company has not established a strong economic and administrative structure in the past 30 years in order to face any changes in the market and the state. This

has a negative impact on the management accounting and control systems in the company. In the past, the company had no competition with other companies in Libya. However, after the Libyan revolution on 17th February 2011, there are now new competitors in the market. One of the costs Accountants asserted that by saying:

“The former managers of the AC embezzled a large amount of money, and then they set up private companies to compete with the AC. The former managers are seeking to destroy the TBC economically in order to buy it cheaply when it sells its shares in the stock market in the future. After that, they will obtain most of these shares in order to become the managers and the members in the Board of Directors in the AC. Thus, the AC will be recovered through their money”.

He also argued that there is a lack of regulations or a constitution in the company that determines the relationship between the costs administration and the other departments in the company. Therefore, it is assumed that all departments have a direct relationship with the management of costs such as the legal affairs office, the sales management, the management of purchase and the marketing department, etc... because the information required by the costs administration must be very accurate before being sent to the General Administration of the company.

3) Resistance from the Managers of the Company: The Director of Costs and Business Control pointed out that the company wanted hiring academics and experts in 2009 from other companies in order to develop the costs administration in the AC. Besides, the company wanted to send some employees from the management of costs to take courses abroad. But, these programmes were cancelled and changed to another programme; letters were sent to the employees of the costs administration to indicate that the employees have become a team to develop the costs management. After the completion of this programme, the company will

establish other departments for costs administration. The Director of Costs and Business Control continued and argued that:

“The lack of interest at the company in the costs department is because the AC is a public company, and therefore there is no sense of responsibility towards the departments in the company in order to be developed, and perhaps the development of costs administration affects the personal goals in the top management”.

Furthermore, he said that the company management claims that the financial and economic situation of the company does not allow for adding new employees, because it will cost the company salaries, furniture and a building for new offices. For example, the administration of costs needs two or at least 3 offices available for the department heads and the administration manager. The administration of costs currently consists of 6 employees. The number of employees assumes to be 11 employees according to the new job description and the organization structure in the company. Additionally, one of the Costs Accountants referred to the lack of support on the part of the General Management of the company for the costs accountants by saying:

“The General Manager of the company is an engineer and is interested in the engineers who are working in other departments in the company, such as the department of maintenance engineering and planning, the electric and electronic maintenance department and the work analysis department. All employees who are working in those departments were dispatched out for the purpose of development, except the employees in the administration of costs”.

In addition to the above, the company management did not give the old and new employees at the costs administration any training courses in order to increase the efficiency of the costs accountants, and therefore leading to its development. Consequently, all of these factors are

resistant to change in the costs systems in particular and they have also impacted negatively on the costs administration team which prevents it from being effective in the AC in general.

6.10 Summary

This chapter has first discussed the historical overview of the company, the company's objectives, the organizational structure of the company and the quality of environment policy. The chapter has also discussed the MACS function and the change process that has occurred in the AC. The elements of the change process are based on the identification of the different change dimensions and the possible causal factors. The two different change dimensions in the AC indicated that the management accounting change is not a homogenous phenomenon. Changes in the strategic planning, the direct allocation of marketing costs, the quality management system and the measurement of performance in terms of customer satisfaction involved implementing as being new systems, while only the information or output was modified for the estimated budget system. These different change dimensions provide one description '*what*' management accounting changed.

A number of causal factors were discovered and the evaluation of these causal factors demonstrate how they initiated changes in the AC's management accounting system through the introduction of a new system of strategic planning, the measurement of performance in terms of customer satisfaction, the direct allocation of marketing costs and the QMS and a modification of the estimated budget and the reporting system. The various causal factors contribute to an explanation of '*why and how*' management accounting changes. In addition, this chapter has discussed some possible reasons to resistance for change.

Having discussed the main findings of the first case study, the AC, which present the most important changes and development in management accounting systems and practices, the next chapter will discuss the main findings of the second case study, the BC.

Chapter Seven: Case Study No. 2:

A Discussion of the MACS in the Second Company

7.1 Introduction

This chapter presents the findings of the second case study, the BC. It starts with the historical background of the company under study in Section 7.2. This section includes some relevant information, including the establishment of the company, its capital, the number of employees, the location of the company, the area of the company and the stages of the life of the company. Section 7.3 illustrates the company's activities. Section 7.4 outlines the objectives of the company. Section 7.5 shows the organizational structure of the company. Section 7.6 discusses the management accounting and control systems that exist in the BC. Section 7.7 discusses the types of change in the BC's management accounting and control systems. Section 7.8 highlights the factors that engendered the changes. Section 7.9 outlines the resistance to change. Section 7.10 summarizes the chapter.

7.2 An Overview of the Company's History

The BC is located in the industrial Complex in Tajoura and is affiliated to the Ministry of Industry. It was established due to the permission of the Libyan General Economy Secretariat No.47 of 1981 after striking a partnership agreement with the Italian Calabrese Company with percentages of 75% and 25% respectively. The BC was established in 1981 as a joint venture with a capital of LD 7.6 million. The company was registered for a period of 25 years starting from 14th October 1981. However, the General Assembly of the company held its non-normal meeting on 15th June 2011 in order to extend the life of the company to another

50 years starting from the original expiry date on 11th October 2006. The company obtained a license to engage in industrial activity on July 29th, 2010 and bearing the number 224469, and will be valid till February 1st, 2020. It also operates according to a set of financial and administrative regulations accredited by the General Assembly in 2009. The number of workers in the company now is 250³¹ and all of them are Libyan nationals. The area of the company is 137,231 square meters (sqm), divided as follows: the factory occupies an area of 16960 sqm; the administration area of 1898 sqm; the warehouses (stores) with a total area of 2373 sqm; the storage yards with an area of 115,700 sqm; and the facilities with a total area of 300 sqm. Furthermore, the BC obtained the certificate of International Standard Organization (ISO 9001 - 2000). Additionally, the value of the company's assets at its founding is LD 285,735 and its asset value reached by the end of the year 2010 to LD 18,845,541. The arithmetic average for the company's production from its establishment up to the year 2010 is LD 200 million, as the arithmetic average of the sales until the year 2010 reached to LD 288 million. The amount of money paid to the public treasury since the establishment of the company up to the year 2010 is LD 49 million.

In addition to the above, there are two stages for the company's life that are as follows: The first stage was in the period (1981-1999), where the company had experienced an excellent period. It was also the same period during which the foreign partner (Calabrese Company) had lived with the BC. In that period, the Libyan state supported the company budgets by foreign exchange and normal exchange rate. That period was also distinguished by increasing the size of the demand and the excellent marketing, where the low costs and the selling prices

³¹ The number of employees was 300 since the company established. But, this number has been reduced to 250 according to the Libyan government's laws.

are satisfactory to all customers and the quality of its outputs was high. In addition, there was no domestic competition with the private sector in that period and the company stopped advance bookings for the company production of trailers several times. Furthermore, the company had excellent liquidity as its business started with the assembling workshop, then the establishment of the first stage of the factory, where the company has established the production line of tippers and fixed trailers.

The second stage (1999-2012) of the company witnessed the establishment and development of the four productions lines that are as follows: the production line of trailers and semi-trailers; the production line of refrigerators; the production line of tippers and fixed trailers and the production line of various reservoirs. This period was also a difficult and unsatisfactory one for the company as the company was informed about the bankruptcy of the foreign partner (Calabrese Company). The BC purchased the Calabrese Company's shares fully which represents 25% of the company capital. Therefore, the company was nationalized and became fully owned by the Libyan state. At the beginning of 2002, the Libyan state imposed the commercial exchange price, which led to higher costs and the selling prices were multiplied three times. Consequently, this led to the desire of the customers to regain their money (advanced reservations) which, in turn, led to the depletion of the company's liquidity and the emergence of the local competitors who had been working in the private sector in recent years. Consequently, all these factors led to a lack of demand and marketing for several years with the exception of some contracts with a number of public companies, such as the Company of Utilities and Housing and the Sanitation Company, even though the demand was not satisfactory for the BC overall. These issues resulted in the following: (i) to use the banking facilities with a high interest; (ii) to give low salaries compared to the

standard of living and the salaries of employees in the private sector in Libya; (iii) the desire of some outstanding technicians in the company left to work in the private sector, where the employees' salaries are three times higher than that of the BC. The Head of the Department of the Producers Affairs and Training asserted that *“more than 20 excellent engineers and technicians moved out the company to work in the private sector in order to improve the level of income”*; and (iv) a lack not only of development in the production lines within the factory, but also of the necessary maintenance, because of the lack of sufficient liquidity, and therefore it cannot use long-term loans from banks due to the high interest rate.

7.3 The Company's Activities

The BC is one of the companies that were established as an entrance to the heavy industry in the early 1980's for production, assembly, maintenance and selling of the heavy trucks and pick-ups tippers, trailers, equipment and accessories complementing the products of other companies like the Trucks and Buses Company and the National Tanmia Company. In addition, the BC manufactures, sells and maintains various trucks' equipment in accordance with the basic system of the company. The BC was also allowed to share any other organization that was engaged in a similar activity. Therefore, the production of trailers, such as cisterns, refrigerators, the cement transportation cisterns of different types and capacities and any special equipment to be mounted on the heavy trucks or pick-ups are amongst the specialties of the BC. Also, the company is currently producing a wide number of tippers covering a large percentage of the Libyan market needs. So, the company has set up a policy to achieve its targets in this field through concentrating mainly on the local raw materials produced by the Steel and Iron Company in Musrata City.

The design capacity per unit in the company's factory consists of a group of production lines that are as follows: the production line of trailers and semi-trailers is 260 units; the production line of the tipper boxes and fixed is 640 units; the production line of refrigerators is 120 units; and the production line of different reservoirs is 270 units. Moreover, the BC has implemented a range of contracts, including, for example, (1) a contract with the General People's Committee of the Utilities³² (previously); (2) a contract with the Public Company for Water and Sanitation; (3) a contract with the General People's Committee of Planning³³ (previously); (4) contracts with the Brega Oil Company; (5) contracts with the Trucks and Buses Company; (6) contracts with the Al-Nahr Company for the manufacturing of pipes and (7) a contract with the transformation fund for production.

In relation to the projects of the replacement and development, the BC has implemented since the start these production projects for replacement and development that are as follows:

- The Second Stage Project for the Factory: the total cost for establishing it stands at LD 3933245 and aims to produce trailers and semi-trailers and the equipment for protecting the environment.
- A Project for Manufacturing the Insulating Panels: the total cost for establishing it is LD 1069255 and aims to produce all kinds of fixed and movable refrigerators which will be used for the transportation and preservation of food.

³² The General People's Committee of Utilities is the Ministry of Utilities (currently) under the Libyan interim government after the fall of the Gaddafi's regime.

³³ The General People's Committee of Planning is the Ministry of Planning (currently) under the Libyan interim government after the fall of the Gaddafi's regime.

With regard to the percentage of the local and external inputs to the company's products, the BC relied on the assembly at the beginning of its founding through providing all the finished equipment which will be installed on the trucks. In other words, the value of the external inputs reaches 100% of the value of the equipment prior to the opening of the first stage of the factory in 1990 when it was relying entirely on the local manufacturing, which its manufacturing stages concentrate on metal forming, welding and painting operation and this is what is customary in all manufacturers for trucks' equipment in the world. The other components, such as systems, hydraulic systems, electrical and air systems, castings, and forgings as well as some auxiliary materials and spare parts are supplied from abroad, because they are not available in the local market. In view of that, the managers of the BC have presented a proposal to the General Management to set up the nutritious factories for producing those materials after doing an economic feasibility study for these factories in order to: (1) decrease the value of external inputs; (2) achieve savings in the foreign exchange; and (3) reach the average ratio of external inputs for equipment, of which the company is manufacturing about 70%, i.e., the company achieved a saving of up to 30% of foreign exchange.

7.4 The Company's Objectives

There are several key objectives for the company:

- The company aims to cover most of the needs of the local market for its products, as the company is manufacturing, selling and maintaining all the different equipments for trucks.

- Contributing to the advancement of the Libyan economy through purchasing the Libyan companies' products that are involved in the productive process in the company.
- Creating job opportunities for Libyan nationals to help the Libyan government reduce the unemployment rate.
- Contributing in supporting the state treasury through paying taxes and customs duties, in that the company has paid about LD 49 million since its establishment.
- Improving the financial performance in the company and make profits.

7.5 The Organizational Structure of the Company

The organizational structure has been modified many times throughout the history of the BC. For example, the previous organizational structure (According to a resolution No.48 issued on 20th March 1999³⁴ by the General People's Committee of Industry and Minerals³⁵) was divided into six offices, as shown in Appendix 11, (legal office, internal auditing office, office of systems and information, industrial prevention office, quality control office and workers services office) and seven general administrations (the general administration, the administrative affairs administration, the financial affairs administration, the commercial administration, the materials administration, the production administration and the research &

³⁴ In 1999, the BC has fully purchased the Calabrese Company's shares and has fully become a Libyan state-owned company.

³⁵ The General People's Committee of Industry and Minerals is the Ministry of Industry (currently).

development administration), and each administration comprises two or three departments (see Appendix 11).

In 2008, the new / current organizational structure of the BC has witnessed some modifications. The organizational hierarchy has been modified and has adopted a new version of vertical hierarchy whereby some administrations were merged into one administration (see Appendix 10). The new / current organizational structure of the BC is basically divided into three main levels of hierarchy: the management committee³⁶ level, the general administrations level and the departmental or divisional level (see Appendix 10). It is through this line of authority that the policies laid down by the Ministry of Industry to the Management Committee are transferred to the general administrations and down to the departmental or divisional level. This line is also used to exercise accountability for performance of the administrations and departments. The company as a whole is accountable to the supervising ministry, but at the same time it is accountable to other governmental bodies, such as the Ministry of Finance; the Ministry of Economy; and the Audit Bureau which is directly affiliated to the General National Congress (GNC) according to the new political system in Libya.

The last official change (accredited by the Ministry of Industry) in the organizational structure of the BC was implemented in 2008. However, a lot of modifications have happened in the formal company' structure since 2008. These include:

- The Director of Internal Auditing stated that the Management Committee (members of the Board of Directors) of the company has changed, and has begun to intervene

³⁶ The Management Committee is the Board of Directors.

more in all matters related to the company. Therefore, this change has affected the management of the accounting practices of the company. For more explanation, the former members of the Management Committee of the company were meeting one day in the year. But after changing the members, the new Management Committee meets monthly and has begun interfering in the company's policies and the daily work system regardless of the reports being frequently presented to them;

- Merging the administrative affairs administration with the financial affairs administration to become one administration called “the administrative and financial affairs administration”. In addition, merging the balance sheet department with the department of general accounts to become one department within the administrative and financial affairs administration. Furthermore, joining the administration of materials with the commercial administration to become one big administration called “the administration of commercial affairs” headed by one manager instead of a manager for each administration as in the past;
- Cancelling the administration of research and development and the establishment of the industrial engineering department and the installation department to be within the production administration and technical affairs. Furthermore, cancelling the office of workers services and the office of systems and information, and the establishment of two new offices called “the committee's affairs office” and “the office of planning and follow-up”.

Accordingly, the current organizational structure of the company comprises six offices and three general administrations. The six offices consist of the committee's affairs office, the

internal auditing office, the quality control office, the legal affairs office, the planning and follow-up office and the office of security and occupational safety. The three administrations consist of the administrative and financial affairs administration, the administration of commercial affairs and the production administration and technical affairs. In relation to the reason of change that happened in the organizational structure, the Financial and Administrative Officer explained that:

“the change in the organizational structure occurred in order to develop the administrations, departments and offices whose mission is to providing better data and resolve certain deficiencies in the management of the company. Also, the company reduces some departments that are not needed, such as the research and development administration and the materials administration”.

7.6 Management Accounting and Control Systems

As mentioned in the preceding chapter, there are five components of the MACS which are: planning systems, controlling systems, costing systems, directing systems and decision-making systems, and each of them has sub-systems (see for instance, Libby and Waterhouse, 1996, p.149; Waweru et al, 2004; Chanegrih, 2008). This section discusses the main MACS and sub-systems that exist in the BC which are as follows:

7.6.1 Planning Systems

The BC uses the estimated budget as a planning system. This system will be explained as follows:

7.6.1.1 The Estimated Budget

All the interviewees pointed out that the estimated budget is not used in the BC for internal purposes only, but it was also required by the state bodies to estimate the needs of the state-owned companies. For example, the Head of the Department of Costs and Inventory Control (who has held this position since 1993) argued that the BC has prepared the estimated budget every year since it was established. The estimated budget of the company was also established according to the directions of the Libyan government, as represented by the General People's Committee of Industry and Minerals (the Ministry of Industry). Also, the preparation of the estimated budget was done to satisfy legal requirements and certain parties, such as the General People's Committee of Control³⁷. In October each year, the BC has to estimate and prepare its budget for the following fiscal year. Thus, the estimated budget was prepared to be based on the targeted production basis. This plan takes into account all the expenditures that will be required for the next year. The annual estimated budget has been used by the company for planning and monitoring. Also, it can be relied upon in the preparation of reports. He also mentioned that the Director of Administrative and Financial Affairs contacts all the departments regarding an assessment of their requirements during the next year. The estimated budget is then prepared by the Marketing and Export Department which sets the number of units to be produced for the coming year. After that, it transfers the estimation of the number of units to be produced to the Director of Production and Technical Affairs. The Director of Production and Technical Affairs identifies the total requirements of the raw materials, other essential inputs, machine operating hours and labour hours and costs required to complete the planned production. The result of the estimated budget process is

³⁷ The Audit Bureau is currently responsible for monitoring the budgets of the Libyan companies.

that production is based on the market needs and the required quantities of the inputs are set. Then, the data is sent to the Costs and Inventory Control Department which, in turn, translates the quantities into costs. Then, the estimated budget is approved by the Management Committee and the General Assembly.

In addition to the above, one of the Costs Accountants pointed out that each department or office within the BC has to prepare a report about the estimated budget to show whether there are variances between the estimated and actual data for each item of sales and expenditures. In relation to the Production and Technical Affairs Administration, the Costs Accountant mentioned that a report on what is produced during a certain period is prepared and then compared to the estimates set in the budget. If the variance indicates that there is an undesirable or negative output, the BC's management takes actions to correct the position. He stated that the Internal Auditing Office has also a duty to follow up the estimated budget by highlighting any variances. The Marketing and Export Department also prepares a report about what is actually sold, in comparison to the estimated budget plan. The Cost Accountant pointed out that there is also the Planning and Follow-up Office which has a role to collect reports from all departments and offices in the BC. Then, all these reports are summarized in a single report which is submitted to the BC's top management in order to assist it in decision-making.

From the written documentation which is related to the annual estimated budget, the researcher will illustrate the most important items that should be taken into account in preparing the estimated budget and can be summarized as follows:

1) The rules and the foundations / the bases that were taken into account in the preparation of the estimated budget:

- The average of the exchange rate for the supplies or the procurement and expected (LD 1,700) per euro equivalent (LD 1.280) per dollar.
- The estimates of the targets of the production were set according to the local market needs for the products, i.e., the advance bookings and the size of the expected demand during the coming year.
- The prices of the supplies are calculated according to the last open documentary credits during the current year, i.e., the goods arrived to the port with calculating a ratio of 5% to cover the expenses of the goods arrived to the company's stores such as the bank expenses, the expenses of ports, the nautical insurance expenses and the transportation expenses for the inside.
- The estimated depreciations were calculated on the basis of the consumption at the end of the current year plus the estimated depreciations of the new assets over the following year.
- The wages and salaries have been calculated on the actual expenses basis during the current year, taking into account the expected changes for the coming year.
- The marketing and administrative expenses have been calculated on the basis of actual expenditure during the current year, taking into account the expected changes for the coming year.

- The returns of the expected activity when the achievement of all estimated budget' items.

2) The most important items included in the estimated budget of each year. These items include the estimated costs for the targeted production; the estimated sales during the year; the objectives of export; the capital expenditures; the estimated consumption / depreciation; the estimated expenditure for the workforce; the estimated production tax; the requirements of raw materials, the spare parts and the inventory value; the company's needs for the foreign exchange; the service expenses and ongoing transfers; comparing the expenses with the estimated revenues; the cash flows and the training plan.

However, the Director of the Internal Auditing Office (who has held this position since 2003) pointed out that there are some items (e.g., a maintenance item and a parking item, etc.) that have been added to the estimated budget in recent years as a result of the pressures of the state, the current management committee's members and the requests of customers and the company's producers. Therefore, the estimated budget has been modified according to those pressures. Therefore, more details will be given later in this chapter regarding this system (see Section 7.7.1.1).

7.6.2 Controlling Systems

The controlling sub-system that exists in the BC is the performance measurement system. This system will be explained as follows:

7.6.2.1 Measurement of Performance

The interviews' results showed that there have not been any changes in the performance measurement methods in recent years. Also, the findings showed that there was no use of advanced performance techniques in the company such as the balanced score-card (BSC). However, some of the interviewees stated that there are various performance measures that have been used in the BC. These measures are being used in the company since inception. For example, the Director of Administrative and Financial Affairs argued that the net income has been utilized as a performance measurement at the end of each year in the company. Moreover, measuring profitability has provided important evidence concerning the level of performance. But, the performance measurement in each area can employ different tools which include the financial targets, such as the cost of products, the profit measure, the liquidity measure and cash flow. Performance is also measured in terms of achieving production targets. Therefore, the company can use different financial measures for measuring the performance. He also said that the performance measurement is also based on the company's ability to repay its debts to others, collect debts from other organizations and demonstrate the ability to sell as well as the production itself. According to the Director of Planning and Follow-up Office, "the performance is measured in the company in several ways: (a) Follow-up the estimated budgets monthly, quarterly and annually; (b) preparing reports on time and on a regular basis; and (c) preparing efficiency reports for workers annually".

With regard to the assessment of the individuals' performance in the BC, the Head of the Department of Employees Affairs and Training argued that the performance of employees is

assessed by measuring non-financial performance through using the annual reports. He also described the performance assessment of employee as being “an annual employee efficiency report”. The assessment covers a number of points, including attendance, work quality, absences, the employee’s relationship with other staff, coordination in the performance of work, the ability to take responsibility, holidays and appearance. In the annual employee assessment report, the director or the head of each department has the right to voice his opinion about the employees if they deserve the following: (1) specific type of rewards or annual bonuses according to the laws and regulations, (2) a promotion to a higher degree in the job, (3) the need for training in specific areas, and (4) whether the transfer to another career is being consistent with his / her ability. In addition, the company has introduced a system of sanctions regulations, which is related to individual’s behavior and also includes all kinds of penalties. The sanctions regulations can result in punishment varying from the warning to the deduction of wages, to dismissal. Furthermore, the Head of the Department of the Employees Affairs and Training mentioned that the performance measurement systems in relation to employees are provided by the Labour and the Civil Service Law No. 55 of 1976 by the Revolutionary Command Council under Al-Gaddafi’s regime. The application of this law was compulsory by all government institutions and Libyan public companies. Arguably, there are no changes in the performance measurement systems in relation to employees.

However, it was noted that there was a lack of clarity of measurement performance systems in managerial and strategic decision-making. For instance, in terms of measuring customer satisfaction, there are no clear policies to achieve customer satisfaction. The Head of the Department of Costs and Inventory Control indicated that there is:

“a lack of market research department, or market analysis department in the administration of commercial affairs to study the market and measure customer satisfaction. There is no attempt to increase the size of the demand and marketing which led to a lack of development of the company”.

Also, there is evidence that the company has failed to agree on the subject of ISO 9001 standard, which specifies the requirements for a quality management system (QMS). The BC has got a certificate ISO 9001 in the year 2007 and has continued in applying it up until 2010. But, this system is no longer used in the company as a result of the divergent views of the managers. The researcher will provide more details in Section (7.7.2.1) about the QMS (ISO 9001: 2000) as being represents a type of change in the company.

7.6.3 Costing Systems

7.6.3.1 The Costing System

The majority of the interviewees argued that the costing system has been available when the company was established in 1981. At that time, the costing system was prepared by accountants from other countries, such as Italy and Egypt due to the absence of the national accountants who are qualified for the preparation of such system. Also, during that period, the accounting system was dependent on the manual method. After that, the Libyan accountants replaced them, but they did not have adequate experience, i.e., the lack of a sufficient number of qualified and experienced accountants. The costing system in the BC was also compulsorily imposed by the General People's Committee of Industry and Minerals (the Ministry of Industry). In 1989, the Management Committee of the company requested from the accountants in the costing department to allocate an account called the allocation of the rising / elevation of the fixed assets as an expense. This allocation had also been taken into account in preparing the pricing system for the products. But, in 2005, this allocation or item was removed from the costing and pricing system at the request of the Director of Internal Auditing directed to the General People's Committee of Control (the Ministry of Control) (see Section 7.7.2.2). The removal of the allocation of the rising / elevation of the fixed assets had been useful for the company because it reduced the costs.

In the 1990s, the company introduced the new computerized system which is consistent with the accounting systems in general and the costs accounting system in particular. This system was introduced to cope with the modern developments to date. Therefore, it can be said that there is continuity in using the costing system. The Head of the Department of Costs and

Inventory Control also pointed out that the costing system has an important task in determining the cost of the product, both in total and per unit. The costing system also calculates, analyses and addresses the cost centers' responsibilities according to three costs elements: raw materials costs, direct labour costs and overhead costs, and that was the case for all Libyan industrial companies. He also mentioned that the costing system has not been changed in the company in recent years.

In this respect, the Director of Internal Auditing Office suggested that all Libyan companies should have a uniform costing system and insisted on that by saying:

“There is an accounting index or guide for Libyan companies, but there is no index for costs, for instance, the items of service expenses are found in the accounting index of Libyan companies, and those items can be cited in this index as it is consistent with the company. Therefore, we hope that the Libyan state could establish a uniform costing system”.

This is equally emphasized by one of the Costs Accountants by saying that:

“it is supposed that all Libyan industrial companies are similar in adopting the costing system, because their industrial activity is similar, therefore the stages of costs will be the same, because each product enters the manufacturing process. The BC, for example, has four stages in each production line from 4 lines: the manufacturing stage, where shear / cut of iron, stage of forming the metal, the stage of welding and coating and the stage of installation and each stage takes its own cost. Also, industrial companies have cost variables, and in my view all companies in Libya should have an index of costs or a uniform costs system. So, each company can be cited in this index, the items that are in line with the company's activity”.

According to the written rules and policies regarding the costing system in the BC, the administration of administrative and financial affairs takes over setting the costing system and in cooperation with other administrations, including the analytical data that illustrate cost

elements to assist in the rationalization of administrative decisions. Also, taking into account when organizing the accounting system achieving the control over the use of elements of different costs and determining the cost of all products and provide data that will help in setting policies and decision-making, particularly, with regard to determining the selling prices of the products by adopting programmes of the expansion and the replacement. Furthermore, the costing system basically consists of a set of interconnected elements which form together a harmonious working in order to provide the data and the accuracy of provable and extraction of results. These elements include, for example: (1) the manual of cost accounts and cost centers; (2) the manual of the costs units; (3) the manual of stores; (4) the records of costs; and (5) the foundations for loading the elements of costs. Besides, the costing system should show the quality of the data that should be recorded and how they are recorded in the required documents.

In addition to the above, the cost elements are divided into the following groups according to the costing system, for example; (1) the labour costs and its supplements; (2) the raw materials and other goods requirements; (3) the direct expenses for machinery involved in manufacturing process; (4) the requirements of the services and (5) the annual depreciation for investments. That takes into account the application of theories of total cost (direct and indirect) and the costs of services (fixed and variable) to determine the optimized size for the production of each item separately. Moreover, the application of the bases of the evaluation as follows:

- The application of the first in first out method (FIFO).

- Evaluating the priced products based on the market price during the assessment or cost whichever is less.
- Evaluating the products which were not priced on a cost basis.
- The uncompleted production is evaluated by the direct cost plus its proportion of the industrial indirect costs according to the last stage of manufacturing process that reached to it.

After presenting the bases of the evaluation in the costing system on the Management Committee, the Secretary of the Management Committee³⁸ forms a Technical Committee in order to set standards for costs elements. The Technical Committee³⁹ utilizes scientific underpinnings that are followed in similar projects, taking into account the circumstances and the nature of the company's activity. Then, the Technical Committee presents a summary of what reached to it regarding the products cost to the Management Committee to take what it sees appropriate.

7.6.3.2 The Pricing System

Some of the interviewees pointed out that the pricing system has not changed or been modified since 2005, because the costing system did not change since that time. In the case of the BC, the Director of Administrative and Financial Affairs stated that the Administration of Commercial Affairs informs the Administration of Production that there are orders from the company's customers. The Production and Technical Affairs Administration specializes in

³⁸ The Secretary of the Management Committee is the Chairman of the Board of Directors.

³⁹ According to the written rules, the Director of Administrative and Financial Affairs must be one of the technical committee members.

calculating the quantity of raw materials used in production. Put differently, the quantity of raw materials needed to produce any product is calculated according to the specification of the Production Administration. Thus, the Production Administration prepares the / a production's report which will be dispatched to the Costs Department. This report presents information regarding the raw materials that should be utilized in production or which product should be produced. There is also a report which shows the cost of the raw materials involved in the production. After that, the Costs and Inventory Control Department also plays a very important role in the pricing process.

From the current written system adopted in the BC for preparing the selling price, the product price is calculated through adopting the following steps: (i) calculating the total cost of raw materials by adding the cost of imported raw materials (the banking credits) to: the bank fees, the purchases transportation cost, the cost of iron and other materials to help in production; (ii) calculating the total cost of labour (wages) on the basis of the number of working hours for producers; (iii) calculating the total cost of consumption of machines that entered in the production process; (iv) calculating the total costs (total cost of raw materials + total cost of wages + total cost of consumption of machines), then calculating a percentage of 20% (administrative and marketing expenses) to get to the total cost; (v) then, calculating the proportion of 10% (production tax), and 12% (profit margin) from the total costs to get to the selling price.

It can be concluded that there is continuity and stability in using the pricing system despite the increased competition in recent years.

7.6.4 Directing Systems

The BC uses the incentives system as a directing system which is as follows:

7.6.4.1 Incentives and Financial Subsidies System

This system has not been changed in recent years. The Legal Counselor pointed out that there is a regulation or a by-law pertinent to the system of incentives and subsidies, such as rewards, tickets for Hajj⁴⁰ or treatment abroad for work-related injuries or compensation for death. This internal regulation of the company determines rights and liabilities or rewards to producers in the company. Thus, the company was able to apply this system since its inception. Also, this system has not been changed in the company.

According to the written regulation or bylaw (accredited by the general assembly), this regulation applies to all employees of the BC in accordance with the following conditions:

1) Giving the incentives mentioned above according to the following cases: (1) achieving abnormal performance rates; (2) doing one's job in a good way; (3) innovating any work that would develop performance and reduce the cost; and (4) the abnormal preservation on the machines and the equipment.

2) The company disburses an amount of money to the members of the annual inventory committee and the committee of the preparation of the balance sheet. This amount is estimated, after the approval of the Management Committee, by its Secretary. It also allows

⁴⁰ Hajj means pilgrimage and is one of the pillars of Islam, where the Muslims visit Sacred Mosque in Saudi Arabia once a year for worship.

to disbursing to any other committees an amount of money that is deemed necessary for their formation.

3) Giving evenly the employees of the company an incentive of 25% of the net return that is achieved during the production period after excluding all costs items on condition that they achieve more than 95% of the targeted production contained in the estimated budget for that period.

4) The company gives tickets for Hajj or treatment abroad for the company's employees in accordance with the following conditions: (1) if the employee has worked at the company for at least ten years (2) the number of candidates of employees do not exceed five people annually (3) the ticket of Hajj is given once a year only.

5) The contribution in paying the expenses of training courses for the company's employees according to the company's possibilities. Furthermore, each producer who offers a study or a research or an innovation that has positive effects in terms of the economic or productive aspect will be given a reward estimated by the Management Committee.

6) The incentives and subsidies referred to above are given according to the extent set out in the estimated budget of the company after taking into account its financial conditions and the achievement of production targets.

7.6.5 Decision-Making Systems

The BC utilizes the reporting system in order to make decisions concerning the issues that are related to the company. This system will be explained as follows:

7.6.5.1 The Reporting System

In the BC, all departments prepare quarterly reports on their activities for the top management, which refers them to the General Assembly in the form of a single report. The reports include data related to financial indicators and non-financial performance evaluation. Information in the company is also reported more broadly. In addition, the company also uses the internal reporting system which includes a number of vertical reports from the departments to the top management and vice versa, as well as horizontal reports between departments, such as the statement containing the amount of material and labour hours required for a unit of product that is prepared in the department of production and sent to the cost and inventory control department for preparing product cost, then sent to the marketing and export department for pricing.

From reading the internal auditing reports, it was indeed clear that the Internal Auditor prepares quarterly and comprehensive reports about the company's activities and the office of Auditing. The internal auditing's quarterly report of 2012, for example, presents information regarding the balance sheet at the end of the fiscal year, production targets and revenues. The internal comprehensive reports of 2004 and 2012⁴¹ provided information such as the financial, administrative and technical position of the company, and the problems and difficulties facing it and the appropriate solutions to overcome them. However, the 2004 report provided more details compared with that of 2012. In relation to the preparation of the internal auditing reports, the Director of Internal Auditing argued that:

⁴¹ The 2004 report had directed to the General People's Committee of Industry (formerly), whereas the 2012 had directed to the Audit Bureau (currently).

“I am the controller of the company and I must write everything in the company, for example, the company has vehicles (cars), which were not sold and had existed in the company for a long time. Therefore, I wrote a report directed to the General Director of the company regarding the existing vehicles (cars) that had not been sold, and I said to him it is necessary to find a solution to these cars, such as the sale”.

Furthermore, the researcher obtained the internal auditing report of 2010 and that of 2012, and both are quarterly reports. Through comparing these two reports, it was observed that the 2010 report was presented on October 14th 2010 and concentrated on the company's achievements during three months, i.e., the period from July 1st 2010 up to September 30th 2010. This report provides information in detail about all the company's activities and the Auditing Office as well as following up the previous balance sheets of 2008 and 2009, the production movement, expenses, revenues, the disbursement through the bank and the company's treasury, the stores, the purchases and the documentary credits. In contrast, the 2012 report was presented on October 20th 2012 and concentrated on the company's activity and the Auditing Office. However, it presents a very brief summary about some works in the company such as the previous balance sheets, production, expenses and revenues. In this respect, some of the interviewees mentioned that there has been a change in the reports. For example, the Head of the Department of General Accounts and Balance Sheet emphasized that by saying:

“There have been some changes in the reports since 2009; from the reports that contain many details to the brief reports that include graphs and information about the company's activity. This change was imposed by the Management Committee as well as the pressures from the Ministry of Industry”.

To summarize, the reporting system is one of the systems that has been modified in recent years. Therefore, the researcher will mention it in the following sections.

7.7 Changes in the BC's Management Accounting and Control Systems

As mentioned earlier in Chapter three, Sulaiman and Mitchell's (2005) typology of change in management accounting (MA) indicated that there are five various dimensions of change in the MA. Therefore, the researcher will explain some changes that occurred in recent years according to the following classification:

1. Introduction of new systems as a replacement for the existing ones.
2. Introduction of new systems where no management accounting formerly existed.
3. Modification in the management accounting information or outputs.
4. Modification of the technical nature of a management accounting system.
5. Removal of a management accounting system without replacement.

Two of these five management accounting change dimensions were discovered in the case study of the BC. These two dimensions are: (1) the modification in the management accounting information or output; (2) the removal of a management accounting system with no replacement. These two dimensions will be explained in the following sections:

7.7.1 Modification in the Management Accounting Information or outputs

As mentioned earlier, this type of change happens either by adding to or modifying the budget - based information or other management accounting outputs (Sulaiman and Mitchell, 2005). This dimension also relates to situations where there are no new management accounting systems involved, such as the estimated budget and the reporting system in the BC.

7.7.1.1 The Estimated Budget

As mentioned previously, some of the interviewees argued that the BC has prepared the estimated budgets every year since it was established. However, some changes have occurred in the estimated budget in recent years. In the case of the BC, the objective of the preparation of the estimated budget was not only for planning and monitoring, but also for gaining access to financial resources. This pathway was prompted by the Libyan government, as represented by the General People's Committee of Finance (previously)⁴², which appointed some Financial Controllers who had worked in the Libyan enterprises as observers. The Financial Controllers were independent of the company as their salaries had been paid by the General People's Committee of Finance. This policy was adopted in the mid 1980s. The main responsibility of the Financial Controllers was to monitor every day operations and implement tight controls on the procedures in the companies. They had also been given the power for signing cheques and therefore they were responsible for the finances. However, at the end of the 1990s, this policy for monitoring had been changed, whereby the General People's Committee of Control (previously) took over this policy in order to monitor the estimated budgets as well as doing frequent visits in order to monitor the company's activities. After the 2011 Libyan revolution, the estimated budget has been monitored by the Audit Bureau under the General National Congress (GNC).

In relation to the changes that have occurred in the estimated budget in recent years, the Head of the Department of Costs and Inventory Control argued that the change in the estimated budget has occurred in some items at the request of the company's Management Committee

⁴² The General People's Committee of Finance is the Ministry of Finance (currently).

(the Board of Directors) in 2009. For instance, the cash balance is set out in the estimated budget, regardless of whether the balance was positive or negative. This work has been done by the company's managers and accountants. This means that the variances analysis and standard costing used in the budget have been influenced by what the company's accountants have learnt at universities and professional training centers. One of the Costs Accountants also explained that:

“the cash balance was previously set out at the end of the financial period and was based on the expected input and output of the cash flow. But, the Management Committee has rejected this method and said that the cash balance at the beginning of the financial period had also to be included in the estimated budget”.

In other words, he said that in 2009, the company purchased raw materials estimated at LD 6 million. Thus, the purchasing cost stands at LD 5 million, which was withdrawn from the cash balance plus the value of banking facilities at LD 1 million. As a result, the company had an overdraft of LD 5 million, which represents the cash balance of the company.

In that year, the Management Committee of the company also requested from the accountants that they introduce the value of the overdraft in the estimated budget at the end of that year. Therefore, the cash balance (overdraft) was included in the estimated budget at the end of that year according to the instructions of the Management Committee. But, that does not mean the company was losing. In a sense, the costs accountant argued that if the BC had sold the finished goods (trailers), the company could therefore cover the cash balance (overdraft). Moreover, the company has money in the form of debt in some companies, such as the AC, and has not yet received that money. Therefore, if the BC has received its money from those companies, the cash balance (overdraft) will be covered by those debts.

In addition to the above, the Head of the Department of Costs and Inventory Control stated that the item of maintenance and wages in the estimated budget is amended every year according to the requests of the company's employees and the increased number of employees respectively. He also stated that the change in the estimated budget has been imposed because of certain circumstances⁴³ in recent years, such as the selling on credit, competition or market pressures, customers, managers of the company, etc.

7.7.1.2 The Reporting System

The change in the reporting system has occurred since the introducing of the computer system in 1990s. The Director of Administrative and Financial Affairs in the BC emphasized that by saying that:

“the progress in the reporting system is owing to the following reasons: (i) the introduction of the computerized accounting system, which made it easier to obtain any accounting information; and (ii) the increasing demand for the accounting information in the decision-making process”.

The Director of Administrative and Financial Affairs also stated that there had been a change in the reports of 2009; from reports containing detailed information to brief reports.

Earlier in Section 7.6.5.1 it was also argued that the reporting system has been modified in recent years as a result of instructions from the Management Committee as well as the pressures exerted by the Ministry of Industry. The change in the content of the existing reports represents an amendment in information outputs of the existing accounting systems in the BC, such as the budgeted statements. Nonetheless, there is an agreement among the

⁴³ See Section (7.8) for more details regarding the factors that caused the change in the estimated budget.

interviewees that the internal reporting system in the company has improved in recent years. However, more work is still required, such as the application of international standard (ISO) in preparing the reports.

7.7.2 Removal of the Management Accounting System with no Replacement

This type of change involves the removal of a particular management accounting system (see Sulaiman and Mitchell, 2005; Chanegrih, 2008). In the case study of the BC, some of the interviewees pointed out that the QMS and the item of the allocation of the rising / elevation of the fixed assets in the costing system have been eliminated and there was no replacement for these systems. The following section will explain this type of change in both systems.

7.7.2.1 Quality Management System

Despite the fact that the company has had the quality control office in order to monitor the production process since the 1990s (see Section 7.5), the company was not using the QMS in the regulatory control. The QMS had temporarily been used in recent years, i.e., throughout the period (2007-2010). According to the Director of the Internal Auditing Office, “the ISO system was a burden on the company, because most employees who were responsible for using this system are engineers. Therefore, the company no longer uses this system”. Since the 1990s up to 2006, the BC had been controlling the production process without using the international standard (ISO) that specifies the regulatory requirements for the QMS. Also, from reading the reports and models of some departments, it was indeed clear for the researcher that the company did not use the ISO system; or the QMS (ISO 9001: 2000) had rather not been mentioned in the reports or models.

According to the written rules and regulations regarding the quality control, the quality control office has the main duties⁴⁴, which are summarized as follows:

- Monitoring the stages and steps of production in order to ensure that the production processes function properly.
- Controlling the quality of the final products during the stages of operating and manufacturing.
- The participation in studying and setting the specifications for raw materials and the imported commodities.
- Participating in the inspection committees and receiving raw materials to be sure of the validity of the imported raw materials and the availability of specifications in accordance with the agreed contracts in cooperation with the competent bodies.
- Designing the forms and reports for the examinations and tests and giving the opinions and the results.
- Collecting data and information that are related to the quantity and the quality of the products and analyzing them and extracting results out of them.
- The assistance in developing the methods of work to improve and increase production.
- The preparation of the periodic and technical reports to control the products' quality, including the suggestions and the recommendations for the treatment of quality

⁴⁴ The duties and responsibilities according to the organizational structure' rules, which has been issued in 1999 and 2008. They are the same and still being applied in practice.

deviations and the submission of these recommendations to the General Director of the Company.

However, in 2007, the company introduced the QMS (ISO 9001: 2000), but was abolished in 2010. The Director of Internal Auditing Office pointed out that this system was cancelled by the top management of the company owing to the following reasons:

- 1) This system has not offered any improvement in the efficiency of producers and workers within the company.
- 2) The failure to achieve an increase in the sales of its products due to lack of improvement in terms of dealing with new customers as well as the erroneous application of quality management in the company.
- 3) The Management Committee consists mostly of engineers who do not have the administrative background; especially this system is a regulatory system within all the company's departments in the first place. Furthermore, the manager and employees who are working at the quality control office are engineers and they do not know how to deal with the QMS (ISO 9001: 2000) in the company. Therefore, this has created a conflict among the employees in the company's administrations and offices, particularly within the financial administration and the internal auditing office, where the heads and employees are specialists in management and accounting.

7.7.2.2 Removing the Allocation of the Rising / Elevation of the Fixed Assets from the Costing and Pricing System:

As mentioned earlier, in 1989, the Management Committee of the company had requested from accountants in the department of costs to introduce an item to the costing system called

the allocation of the rising/ elevation of the fixed assets as an expense. According to the Management Committee's view, this allocation should be calculated as an expense after ending the life span of the fixed asset (i.e., after ending 5 years), whether it was a machine or a car, i.e., it should be calculated as an expense in the case if it is still using and offering in revenues for the company. Also, this allocation had been taken into account in the pricing system. This method in calculating the allocation of the rising / elevation of the fixed assets lasted from 1989 to 2005. However, in 2005, this item was cancelled from the costing and pricing system as a result of a disagreement between the Management Committee of the BC and the Director of internal auditing Office (who has held this position since 2003) concerning this item (the allocation of the rising / elevation of the fixed assets). Consequently, removing this item had been positive and very useful for the company, because it reduced the costs. In this regard, the Director of Internal Auditing Office explained that by saying:

“In my view, the idea of applying the allocation of the rising / elevation of the fixed assets in the costing system is not logical, and I disagree with this idea. Also, I think that if the company has benefited from a machine or a car after ending its life span, it is because it is still working well and still contributing in the production process and achieving in revenues. That is a matter related to the company; therefore it is not necessary that we calculate this item. In my opinion, this allocation has led to increasing the costs. This is the reason why I requested from the Management Committee to cancel this allocation. Cancellation of this allocation is very useful for the company, because it reduces the costs. I have discussed this idea with the General People's Committee of Control as being the top authority for monitoring the governmental units and they agreed with me to cancel the allocation of the rising / elevation of the fixed assets. To address this item, the control employees told me that the allocation closes in losses account if there were any losses or to be added to the profits account if there were profits in the company. Therefore, since 2005, we have not been using this allocation”.

The Director of the Internal Auditing Office also argued that the Management Committee in 1989 had also requested from the accountants to do a re-evaluation of the machines in the company in order to reach the working capital. But, there was no agreement with the Management Committee regarding the evaluation process due to the circumstances of the company, except in one case which is the liquidation of the company, or in the case of the sale of the company.

7.8 Factors that Caused Changes

The previous section demonstrated two management accounting change dimensions discovered in the case study of the BC. The first change dimension was the modification of a management accounting information, such as the estimated budget and the reporting system. The second change dimension was the removal of a management accounting system with no replacement, such the QMS and part of the costing and pricing system. The two dimensions indicated that management accounting is not a uniform phenomenon. So, the causal factors of change may also be expected to vary. The next section identifies the causal factors that have led to these management accounting change dimensions in the BC.

7.8.1 Institutional Factors

The institutional factors (internal and external) that caused change in the BC's management accounting systems will be explained in the following sections:

7.8.1.1 The Libyan Government's Laws and Regulations

The majority of the interviewees stated that the Libyan government's regulations have had a significant impact on the estimated budget. For instance, the Director of Production Affairs

mentioned that employment in Libya is based mostly on social relations, which led to inflation in the number of employees in all Libyan companies. However, in 2007, the Libyan state issued a resolution concerning the reduction of employment in all government institutions and public companies. Based on this resolution, the Ministry of Industry sent correspondence to general industrial companies to inquire about the increase in the employees. He also said that the Ministry of Industry has found an increase in the number of company employees. This number was 300 employees. Therefore, in 2007, the Ministry of Industry reduced the number of 300 employees to 250 employees, and 50 employees were dismissed from the company. After that, these employees were transferred to the Manpower Bureau and the Ministry of Public Security according to another resolution issued by the Libyan state. Consequently, this reduction in the number of employees has led to the reduction in wages in the estimated budget. Therefore, the company benefited financially from the decision of the reduction.

In addition, the Libyan state has not paid much attention to the public sector companies in recent years and has imposed many regulations and laws. For instance, the Director of Commercial Affairs pointed out that the state imposed the commercial exchange rate according to which 1.700 dinars per euro becomes / is equivalent to 1.280 dinars per dollar. It also imposed taxes on the companies from year to year. Moreover, the double taxation was applied when purchasing supplies, such as the raw materials and the auxiliary materials. In other words, calculating a tax on the supplies involved in the production process and again in the sales process led to a rise in the selling price of the company's products. As a result, all these rules and regulations have influenced the estimated budget in the BC.

Moreover, after the political system in Libya was changed in 2011; the Libyan National Transitional Council (LNTC) has issued new laws and regulations. These laws and regulations have been implemented by the Libyan enterprises, for example, the taxation system and customs fees. So, this change in tax laws has been taken into account while preparing the estimated budgets in the BC.

7.8.1.2 Customers Satisfaction

The Head of the Marketing and Export Department stated that customer requirements or product specifications have influenced the estimated budget. For example, in the previous years, the company had produced tanks (reservoirs) at a thickness of 3 ml of iron and was recorded in the estimated budget. However, another customer came and asked for reservoirs with certain specifications in the same year with a thickness of 5 ml. Therefore, these specifications (e.g., an increase in thickness) had been taken into account in the estimated budget (reservoirs item) in the following year. Furthermore, in the same year, the Libyan army had ordered reservoirs (tanks) of a thickness of 8 ml of iron to transport fuel and water to cope with the desert areas. Thus, the company had calculated the cost of these reservoirs / tanks which was added in the estimated budget in the following year.

In this respect, the Financial and Administrative Officer emphasized that customer satisfaction is one of the factors that should be taken into consideration while preparing the estimated budget:

“the BC is an integral part of the surrounding environment. Therefore, any external factors (e.g. customer satisfaction on products, market policy and competition) will be taken into account in preparing the management accounting systems. These factors downright will provide the company with a lot of matters, such as recommending, developing and adding some

amendments to the administrative methods. According to these factors, the company will discover any problems or shortcomings in the company systems, and alert the Management Committee (the Board of Directors) on the topic in early time”.

7.8.1.3 Organizational Characteristics

The Director of the Administrative and Financial Affairs argued that the number of units and the number of employees and their demands have influenced the estimated budget. According to Hussain and Hoque (2002), organizational characteristics such as the size and nature or type of business may determine the range of possible change in organizational systems. In the case study of the BC, the number of units had impacted on the costs of production. For example, in 2012, the company produced 500 units. In 2013, the company is trying to increase the number of units, i.e., to have an optimistic budget, because the increase in the number of units reduces the cost of production, i.e., distributing the cost on the number of units produced. However, the small number of units produced leads to the / an increased cost due to the presence of other fixed costs, such as electricity costs and wages, etc.

With regard to the number of employees and their requests, the Director of the Administrative and Financial Affairs said that the number of employees also has affected the wages; when the number of employees increases, so do the wages and the annual bonuses, because the employees' premium increases every year. Put differently, if the company wants to recruit new employees, that would require an increase in wages in the estimated budget of the company. Therefore, the number of new employees may show in the records as well as the value of wages will appear in the item of wages in the estimated budget. Armstrong (1985) stated that change may occur from employing new experienced accounting staff. In

relation to the BC employees' demands, the Director of the Internal Auditing Office said that the employees had influenced the change of the annual estimated budgets through their frequent requests for maintenance (see Section 7.7.1.1). In this regard, Granlund (2001, p.162) suggested that the human factor should be carefully deemed in the accounting system development projects.

7.8.1.4 Copying Management Accounting Practices from Other Companies

The BC is a partner with the Italian Calabrese Company in terms of capital, whereby the BC has 75% and the Calabrese Company has 25%. According to the Director of the Administrative and Financial Affairs, since the BC was established in 1981, some of the employees who had worked at the BC are Italians and some of them are Egyptians. At that time, all of them were using traditional management accounting systems in their own countries. Therefore, the BC is still using the same management accounting practices to date. In recent years, the only advanced technique that the company has tried to apply was the QMS based on the ISO 9001 standard. This system was applied in other Libyan companies (e.g., AC). But, unfortunately, the company has failed in its application. This system was applied in 2007 and was later abolished in 2010.

7.8.2 The Market and Competitive Pressures

Some of the interviewees argued that the market pressures (unfair competition) have influenced the company in terms of reducing costs. For example, the AC began to compete with the BC. In other words, the Head of Marketing and Export Department argued that:

“when the customer comes to the AC in order to purchase a truck, the AC asks the customer, what kind of trailers they want to have installed on the

truck? This means that the AC seeks to manufacture, or provide a trailer for him. In addition, after the revolution of February 17th, 2011, some former directors of the AC were dismissed because they were supporters of the Gaddafi's regime and embezzled a lot of money from the AC. These managers have got the money and established a private company in Libya, the Technology Company”.

The Head of the Marketing and Export Department also emphasized that the private company has obtained the companies' contracts that were in the AC. Thus, this private company became a competitor with the AC and BC. Although the BC contains manufacturing stages and each stage has its costs and the cost of manufacturing in Libya is very high, for example, the BC buys iron from the Steel and Iron Company in Misurata city, Libya. In the field of trading of trucks and buses in Libya, the private companies do not have manufacturing costs in their activities, because they can bring in trucks and reservoirs ready from abroad. Nevertheless, the Libyan state - owned manufacturing companies and private companies are importing goods and raw materials at the same price. Therefore, the Libyan state is supposed to reduce costs for public companies.

Furthermore, in 2000, the situation changed as a result of the deregulation of the Libyan economy. This created a competition with the private sector which offers better selling prices and good salaries. Therefore, this drove some excellent producers in the company to move to work in the private sector, where the number of producers reached 20 in order to improve the standard of living and getting better salaries up to 3 times the salary offered by the BC. Accordingly, the competition with local traders sometimes has an effect on the estimated budget of the BC through reducing costs or expenses in the company. Thus, if the BC wants to be able to compete in the market; it should reduce its costs in spite of the fact that this reduction has a negative side on the company.

In addition to the above, after February 17th, 2011, the situation also changed as a result of the deregulation of the Libyan economy due to the change in the political system. This increased a competitive market environment and influenced negatively the sales of the BC.

As the Director of Internal Auditing said:

“we had been working as a monopoly company supported by the Libyan state, but the economic deregulation after the Libyan revolution in 2011 has decreased this support and put us in a competitive environment, with many other operational problems created by the Libyan state policies”.

7.8.3 The Managers of the Company

The Head of the Department of Costs and Inventory Control pointed out that during planning for the preparation of the estimated budget in the costs department, the financial administration sends correspondences to the managers and heads of departments in the company to know their opinions and demands concerning the estimated budget. For instance, the financial administration asks the production administration about the number of units that can be produced in the future. For example, the production administration asks the purchase department to provide spare parts for machinery. Thus, this matter influences the estimated budget through reducing the costs in the following year. The financial administration also inquires the commercial administration about the number of units that can be sold in the future. In addition, inquiring from other departments such as the marketing and export department whether they have received purchase orders from customers, as well as to inquire from the purchase department, if they can buy spare parts for machinery. Thus, all of this coordination is organized by the financial administration of the company to reach a satisfactory agreement out of all departments.

Furthermore, the Director of the Internal Auditing Office stated that the change in the Management Committee has influenced the management accounting practices by saying that:

“the current management committee started to change some things in the company, whereby its members seek to offer something different every month, even the estimated budget. But, in the past, the former members of the management committee were not given a chance for the reforms in the company, because they were meeting once a year and they changed simple things within the company”.

In addition, he said that the Management Committee has compulsory instructions directed to all departments of the company in order to change the style of reports; from comprehensive and detailed reports to brief reports. Therefore, this kind of change is due to a coercive pressure on the departments’ managers in the company.

On the other hand, he said that there are conflicts between the current managers of the company. In other words, the Financial Manager of the company is acting with complete freedom and without consulting other managers in the company, such as the recruitment of new staff, giving rewards without reference to other managers, and also giving financial subsidies from the value of the stationery. So, the power of resources was used by the Financial Manager. In relation to the costing and pricing system, the managers’ pressures also have engendered a change in the costing and pricing system. For example, the Director of the Internal Auditing Office is a key factor in changing part of the costing and pricing system in the company. He cancelled in 2005 an item of the costing system called the allocation of the rising / elevation of the fixed assets (see Section 7.7.2.2).

7.9 Resistance to Change

This section shows some issues that are related to resistance to management accounting change in the BC. The following points were explained by some of the interviewees regarding the reasons for resistance to change in the MACS:

1) Qualifications and Experience of the Employees: the factors that conducted to the lack of development in the methods of accounting and administrative control are the weakness in the qualifications and expertise of the employees in the company, the weakness in their ability to implement the best alternatives and the fact that the company did not give training courses for the accountants in advanced management accounting. In the case of the BC, the researcher observed that most of the employees, including the managers of the company, are graduates from the same universities; called Garyounis University and Al-Fatah University (see Section 2.2.3). Thus, the university education had influenced the scientific background of the employees, in turn, it has also affected the management accounting practices in the company, because it was concentrated on the traditional management accounting systems (e.g., the estimated budget and costing systems) rather than the advanced accounting systems (e.g., ABC, BSC). Therefore, any company that wants to succeed, compete and achieve a better return has to be concerned with the development of competencies and capabilities and qualifications in the company. Moreover, the qualifications and experience of employees have led to resistance in applying the QMS. For instance, the employees at the Quality Management Office did not have the adequate experience in applying it successfully, because all of them are engineers and they did not have a qualification in accounting and management.

2) The Libyan State's Laws and Regulations: Calculating tax on supplies that involved in the production process and counting that again in the sale process led to a rise in the selling price of the company's products. Calculating the tax twice represents a big burden on the company. Therefore, the company suggests that the tax law is calculated only once. Therefore, imposing these laws and regulations is one of the problems and difficulties facing the BC in developing its accounting systems, because the introduction of any advanced accounting system needs a lot of money; for example, the cost of giving training courses for accountants, the cost of hiring experts to introduce the new system, etc. In this respect, the Financial and Administrative Officer emphasized that by saying:

“the change in any Libyan state - owned company should occur in accordance with changing the state's rules and regulations, therefore, this factor is one of the factors that make the company inflexible in changing the management accounting system such as the costing system and the financial and non-financial performance measurement system for the better”.

3) The Conflicts among the Company's Managers:

Some employees in some departments of the company do not accept criticism. The Director of Internal Auditing stated that:

“when I write a report on the staff of the company, some of the administrations and departments do not accept criticism, especially the commercial administration in the company. For example, previously, I wrote a report that was directed to the top management of the company. I mentioned in that report that the accountants in the commercial administration did not take into account the accounting entries which are related to the purchases department. But, the employees in the commercial administration have commented on this report and they refused my criticism as a Financial Auditor”.

It can be concluded that the culture of the employees is one of the factors behind resisting change in the management accounting systems. For instance, there was a conflict between the managers concerning the weakness of the quality control employees in applying the QMS based on the ISO 9001: 2000.

7.10 Summary

This chapter has first discussed the historical overview of the company, the company's objectives, the company's activity and the organizational structure of the company. The chapter has also discussed the MACS and the change process that has happened in the BC. The elements of the change process are based on the identification of the different change dimensions and the possible causal factors. The two different change dimensions in the BC demonstrated that the management accounting change is not a uniform phenomenon. Changes in the information or outputs were modified for the estimated budget and the reporting system, while the QMS is the only system that has been removed from the management accounting system in the company. These different change dimensions provide one description '*what*' management accounting changed.

A number of causal factors were discovered and the evaluation of these causal factors (internal and external) demonstrate how changes have been initiated in the BC's management accounting system through modifying the existing management accounting systems, such as the estimated budget and the reporting system and a removal of the QMS and an item in the costing system. The various causal factors contribute to an explanation of '*why and how*' management accounting changes. In addition, this chapter has discussed some possible reasons behind the resistance to change.

Having discussed the main findings of the first case study, the BC which represents / embodies the most important changes and development in management accounting systems and practices, the next chapter will be cross-cases and discussion.

Chapter Eight: Cross Cases and Discussion

8.1 Introduction

Chapters Six and Seven presented the results of the empirical study. The analysis of the two case studies, the AC and the BC focused on the nature of change in the MACS as well as the internal and external factors that may affect the MACS, including the institutional and competitive pressures along with intra - organizational power relations. The purpose of this chapter is to discuss the findings vis - à - vis the institutional theory framework which underpinned the study and was developed in Chapter Four. The discussion makes sense of the MACS in the two Libyan state - owned manufacturing companies. In this chapter, there is a comparison of the most important findings reached by the two case studies which are referred to in Chapters Six and Seven. According to Yin (2003, p. 34), the development of consistent findings over multiple cases contribute to more robust findings. Hence, the differences between the detailed case studies are also of interest.

The remainder of this chapter is structured as follows: Section 8.2 presents a reflection on the case studies in the Libyan context. Section 8.3 highlights the change in the organizational structure. Section 8.4 discusses the nature and location of change in the MACS in both companies. After that, Section 8.5 discusses how the MACS in the selected companies studied were shaped by institutional isomorphism. Following this, there is Section 8.6 which discusses the impact of market forces on the design and use of the MACS in both companies. Then, Section 8.7 discusses how the MACS in the selected companies were shaped by intra - organizational power relations. This is followed by Section 8.8 which examines resistance to change. Finally, Section 8.9 provides a summary of the chapter.

8.2 Reflection on the Case Studies in the Libyan Context

The two case studies are large state - owned companies and their activities are industrial and commercial. Both companies are also located in the industrial complex in Tajoura region and are affiliated to the Ministry of Industry. This means that the social, economic, political and environmental circumstances are quite similar. They were also founded around the same time as joint ventures. The AC was founded in 1976 as a joint venture with the Industrial Vehicles Corporation (IVECO) based in Italy, whereas the BC was founded in 1981 as a joint venture with the Italian Calabrese Company. However, in 1999, the BC became fully owned by the Libyan state as a consequence of the bankruptcy of the foreign partner, whereby the BC has fully purchased the Italian Calabrese Company's shares. The reason for establishing these industrial companies in Libya is to create job opportunities for Libyan citizens. Thus, the Libyan state achieved self - sufficiency and self - reliance through relying on local production rather than consumption from abroad. The AC produces locally trucks and buses, whereas the BC produces trailers which are installed on the trucks. Therefore, there is a clear relationship in manufacturing operation between both companies. They are working in the same field. In relation to the number of employees, the number of employees employed by the AC at the time of carrying out this study was 770, while the number of workers in the BC was 250 and all of them are Libyan nationals. In relation to the area, the AC occupies a total area of 660,000 sqm, whereas the BC occupies a total area of 137,231 sqm.

With regard to the companies' capital, it was quite similar when they were established: that of the AC was LD 6.8 million in 1976, while that of the BC was LD 7.6 million in 1981. The

share of foreign partners was similar in both companies; it constituted 25% of the capital in each company. The AC's capital reached LD 96 million in 2000 which represents the current capital, while that of the BC has remained the same since its inception. Furthermore, the capital of both companies remained the same until 2013. The two companies were also given a certificate of International Standard Organization (ISO 9001: 2000). The AC obtained this certificate in 2004, while the BC obtained it in 2007. Moreover, in the 1990s, like many Libyan state - owned companies, both companies witnessed the same circumstances, such as the imposing of international sanctions by the UN and the USA (see Phillips, 2001; Vandewalle, 2006), in addition to the recent sanctions imposed in 2011 as a consequence of the Libyan uprising (see Security Council, 2011). In addition, the market has become more open and the competition increased (see Otman and Karlberg, 2007); for more details see Chapter Two.

In relation to the objectives of the AC and the BC, both companies were established in order to achieve social, political and national goals, such as creating job opportunities for Libyan nationals, reducing dependency on the industrialized countries. Therefore, achieving Libyan self – sufficiency and contributing to supporting the state treasury through paying taxes and customs duties and providing the local market with goods and services while making a profit was not the primary goal. Even in the case of making profit in both companies, due to the state' regulations, part of this profit was going to the state treasury while a small proportion was staying in the company and the rest of the profit had to be distributed to the company's employees. In this regard, the Financial Operations Director in the AC pointed out that making a profit is one of the primary aims. He stated that “we did pursue for profit - making in the company, but we did not use the word profit”.

However, after the deregulation of the Libyan economy in the early 2000s, i.e., when the imposed sanctions on Libya by the US and the UK were lifted in September 2003, the state - owned companies were oriented towards making profit. Moreover, the Libyan government embarked on a series of social, economic and legal reforms. It demonstrated its intention to move towards a free market. Therefore, a number of laws and resolutions were issued by the General People's Congress (GPC) in the past few years in order to enhance economic development and move the country from a centrally - controlled economy to a liberalized economy by encouraging the private sector to emerge again and attract foreign investments (Ali, 2010). Hence, a new business environment has been created within which Libyan companies operate, particularly the ones which are state - owned and encounter increased competition; thus causing deterioration in their financial performances (ibid). As such, improving the financial performance has become one of the main objectives in the state - owned companies. In the case of the AC, for example, the profitability was a strategic goal according to the strategic plan framework for the period 2009 - 2014 (see Section 6.7.1.1). In the case of the BC, improving financial performance has also become one of the key goals. The Director of Commercial Affairs in the BC stated that:

“we are now required to improve the financial performance and make profits in order to make the company encounter the increased competition. Therefore, the company can maintain its position in the market, unlike in the past, where the profitability was not the primary objective of the company”.

8.3 The Change in the Organizational Structure

Both companies witnessed some changes in their organizational structure around the same period (see Chapters 6 and 7). The organizational structure of the AC witnessed some

modifications in 2009 while the organizational structure of the BC was changed in 2008 (see Appendices 8 and 10). Nonetheless, there is a difference between the styles of organizational structure of the companies in the two case studies. The change occurred in both companies in order to develop administrations and offices as well as resolve some certain deficiencies in their administrations. Many researchers highlighted the fact that organizational structure has an effect on the ability of an organization to successfully change its practices and to implement innovation systems (Otley, 1980; Innes and Mitchell, 1990; Cobb *et al*, 1995; Gosselin, 1997; Alkizza, 2006; Abdel-Kader and Luther, 2008). In the case of the AC and the BC, the researcher found out that the organizational structure has shaped the management process, but may not have affected the processes of the MACS. In this respect, this finding is in opposition to the authors' remarks mentioned above. This result is also inconsistent with the notion that the changes in organizational structure have significant implications on the nature of management accounting, especially the way in which traditional accounting systems are now being used (Scapens and Burns, 2000).

However, the above result is consistent with that of Scapens *et al* (2003, p. 6) who stated that "the change or stability in organizational structure has shaped the management process, but may not have affected the processes of management accounting". Moreover, the finding in this section is congruent with that of Cassia *et al* (2005) who argued that "the evaluation of the organizational configurations is not always coherent with the relevance assumed by management accounting systems" (p. 373).

8.4 The Nature of Change in the MACS

The researcher in this study relied on Sulaiman and Mitchell's (2005) typology of management accounting change. Their typology proposed five categories of management accounting change, namely: (1) addition, (2) replacement, (3) output modification, (4) operational modification and (5) reduction. In the current study, the main results regarding the nature of change (types of change) demonstrated that the change in the MACS is not a homogeneous phenomenon in the two selected companies. This finding is consistent with those of Granlund (2001) and Chanegrih (2008) who pointed out that there is no generally agreed definition of management accounting change. In the case of the AC, for example, the findings revealed that there are two types of management accounting change. Firstly, the introduction of new systems (addition) was observed through introducing the following systems: strategic planning, the QMS, performance measurement in terms of customer satisfaction and direct allocation of marketing costs. Secondly, modification in the management accounting information (output modification) was also remarkable in the following systems: the estimated budget and the reporting system.

In the case of the BC, the findings illustrated that there are two types of management accounting change. Firstly, modification in the management accounting information (output modification) was observed through modifying the following systems: the estimated budget and the reporting system. This type of change is similar to first case: the AC. Secondly, the removal of a management accounting system with no replacement (reduction) was prominent in the BC through reducing the QMS and the allocation of the elevation of the fixed assets in the costing system. These reductions in the MACS occurred as a result of the reasons

mentioned in Section 7.7.2.1 and Section 7.7.2.2. By contrast, Sulaiman and Mitchell (2005) pointed out that there was no occurrence of management accounting reduction, nor did they think why this was so. Arguably, the results of both companies show that various types of management accounting change (addition as well as output modification and reduction) are represented in some of the MACS sub - systems, with the exception of replacement and operational modification, which were not observed in any of the studied companies. Table (8.1) summarizes the types of change in the MACS in both companies. The changes in the MACS in both Libyan companies occurred due to the following factors: political pressures, the government's laws and regulations, leading organizations' pressures, copying the best practices from other organizations, competitive pressures, customer satisfaction, organizational characteristics and the managers of the company (power). Furthermore, both companies have clearly witnessed incremental changes in some of the MACS, and such changes seem to be more an evolution than a revolution (Bromwich and Bhimani, 1989).

Table 8.1: A Typology of Management Accounting Change in the AC and the BC

Dimensions of MA change	MACS in the AC	MACS in the BC
Addition	1) Strategic planning. 2) QMS. 3) Measurement of performance in terms of customer satisfaction. 4) Direct allocation of marketing costs.	
Output Modification	1) The estimated budget. 2) The reporting system.	1) The estimated budget. 2) The reporting system.
Reduction		1) QMS. 2) The allocation of the rising / elevation of the fixed assets in the costing system.

Table (8.1) shows that there are different types of management accounting change (dimensions of change) in the cases of the two organizations under study. These types of change are (1) the introduction of new systems (addition), (2) modification in the management accounting information (output modification) and (3) removal of the management accounting system with no replacement (reduction). However, there is a similarity and differences between the AC and the BC regarding those changes in the MACS. With regard to the similarity, output modification has occurred in the two companies. Both companies have modified the estimated budget and the reporting system. In relation to the differences between the AC and the BC, two differences should be noted. Firstly, addition was observed in the AC's MACS, including strategic planning, the QMS, performance measurement in terms of customer satisfaction and direct allocation of marketing costs. This

type of change (addition) did not occur in the BC. Secondly, reduction was not observed in the AC, whereas this type of change was observed in the BC whereby two systems were removed from the BC. These systems are the QMS and the allocation of the rising of the fixed assets. According to the researcher's view, the development occurred in the AC and did not occur in the BC is owing to the following reasons: (i) there is lack of support of the top management (power) of the BC, whereas the AC has the sufficient support of the top management in order to introduce or implement the aforementioned new systems; (ii) a lack of sufficient liquidity in the BC, which made it unable to introduce new systems, such as strategic planning and direct allocation of marketing costs; (iii) a lack of qualified employees in accounting and management in the BC compared with the AC. In a sense, the BC's management concentrates on hiring people who have qualifications in engineering; therefore they do not know how to deal with the new systems such as the QMS; and (iv) the BC is fully a Libyan state – owned company, therefore there is a lack of support of the Ministry of Industry towards the public industrial companies in recent years as a result of emerging of the private sector, whereas the AC is a partner with IVECO with a percentage of 25% of the capital, therefore the AC has a support of the foreign partner, such as the financial support and hiring experts for the company. This support allows the AC to compete in the market through introducing new systems, such as direct allocation of marketing costs and performance measurement in terms of customer satisfaction.

8.5 Institutional Isomorphism and the MACS in the Studied Companies

Earlier in Chapter Four, it was argued that the key idea in institutional theory is that organizations design systems and structures to maintain external legitimacy instead of the

purpose of achieving economic efficiency only. Then, the chapter identified the three main institutional pressures encountering organizations, including coercive, normative and mimetic pressures (DiMaggio and Powell, 1983; 1991; Oliver, 1992). This section demonstrates how MACS in the two studied companies were shaped by these isomorphic pressures. It has been argued that the design and operations of the MACS in the two companies are inextricably related to the changes that have taken place in the institutional environment (Collier, 2001; Tsamenyi, *et al*, 2006). It will be demonstrated that certain aspects of the structures, policies and processes of the two companies illustrate conformity with the rules and regulations expressed by external components such as the government and society (DiMaggio and Powell, 1983). For instance, the two companies had to work within the rules imposed by the Libyan state or the Ministry of Industry in order to be able to get external legitimacy. It is also argued that the MACS are shaped by several institutional factors. These institutional factors and their impact on the MACS of the two companies are discussed under the three types of isomorphism in the following sections.

8.5.1 Coercive Isomorphism and the MACS

Institutional theory proposes that some institutional fields contain influential environmental agents imposing structural forms or practices on subordinate organizational units (see for example, DiMaggio and Powell, 1991; Carpenter and Feroz, 2001). This relates to coercive isomorphism and happens as a result of the pressures from those that the organization relies on externally such as external resource providers, including the government and the credit markets as well as the regulatory environment. Therefore, coercive isomorphism is concerned with how organizations are constrained by external resource providers (Oliver, 1991).

According to Jan *et al* (2012, p. 330), coercive pressures are defined as “both formal and informal pressures exerted on social actors to adopt the same attitudes, behaviors and practices, because they feel pressured to do so by more powerful actors”. They also mention that there are two types of coercive pressures, which are regulation and competition (p. 331).

In relation to the estimated budgets in the AC and the BC, some findings are related to coercive isomorphism. This indicates that the influence on the MACS came from institutional pressure. The estimated budgets of both companies have been affected by political pressures and the Libyan government’s laws and regulations (or the Ministry of Industry’s regulations), which are considered as coercive pressures (regulatory pressures). In this regard, Jan *et al* (2012, p. 331) pointed out that “regulatory pressures may arise from government and professional regulatory agencies”. In relation to political influence, DiMaggio and Powell (1983, p. 150) argue that coercive isomorphism “stems from political influence and the problem of legitimacy”. In the present study, the researcher found out that political pressure for change is a major pressure in the Libyan industry sector. For example, an embargo was imposed by the UN and the USA on Libya during the 1990s. Economic factors such as the UN’s and American economic sanctions also had affected the day - to - day activities in both companies and clearly hindered the management and control processes. Consequently, both companies were not able to import spare parts from abroad except through other countries adjacent to Libya. However, the costs of these spare parts were very high given the lack of foreign currency. Furthermore, the political decisions issued by the government under Al-Gaddafi played a huge role in this respect. All these types of pressures negatively affected the estimated budget. Thus, the political factor influenced the MACS in the state - owned enterprises. Many previous studies in different contexts have indicated similar findings with

the above finding, for example the ones undertaken by Hoque and Hopper (1994, 1997), Uddin and Hopper (2001), Wickramasinghe and Hopper (2005) and Uddin and Tsamenyi (2005). The researcher's finding is also consistent with Musa's (2005, p. 237) whose case studies of three privatized factories in Libya revealed that "as a result of shortage in raw materials and spare parts, none of these factories achieved its targeted production. This finding affected the budgeting system in these factories, as managers were unable to predict and estimate future circumstances". Regarding the impact of the government's laws and regulations on the budget, the issuing of laws and regulations (e.g., imposing taxes and reducing the number of employees) continuously and unexpectedly affected significantly the activity of the two companies in general and the estimated budgets in particular. This finding is congruent with Alkizza (2006) who stated that the change in management accounting in Libyan companies was motivated by similar conditions, such as the state regulations.

In the 1980s and 1990s, there were coercive pressures on the companies by the state agencies such as the General People's Committee of Finance (or the Ministry of Finance) and the General People's Committee of Control (or the Ministry of Control). The role of these agencies was to monitor the estimated budgets and the companies' activities by the financial controllers. However, after the 2011 Libyan revolution, this policy has been changed. The Audit Bureau has taken over this policy in order to monitor the estimated budgets as well as the companies' activities. Moreover, customer satisfaction is also considered as competitive pressure that has been taken into consideration while preparing the estimated budget in the second case (the BC). With more explanation, the change in the product specifications (e.g., an increase in iron thickness) has affected the estimated budget. For instance, reservoirs item (tanks item) is modified in the estimated budget according to the customer's requirements.

This means the products are being manufactured in line with the customer's demands. On the contrary, the findings regarding the AC revealed that little attention had been paid to customer satisfaction in the past. This finding is inconsistent with the argument of Alkizza (2006, p. 222) which stipulates that little attentions had been paid to customer satisfaction in Libyan public companies.

Coercive isomorphism also reflects the notion of power. In a sense, coercive isomorphism embeds the concept of power that originates inside the organization. In the case of the BC, the empirical evidence revealed that the instructions imposed by the Management Committee (the Board of Directors) reflect coercive isomorphism. With more explanation, the change in the estimated budget has occurred in some items (e.g., the cash balance, the value of the overdraft and the item of maintenance and wages) at the request of the company's Management Committee (the Board of Directors). Therefore, the Management Committee is seen as internal power within the BC. According to the researcher's view, this kind of power represents the positive dimension in accordance with the concept of NIS analysis (see Section 4.5.3). The positive dimension of power enables people to carry out things. For example, it can be used to introduce new MACS or practices (see Giddens, 1984; Macintosh, 1990).

Regarding the controlling systems, it was found in the case study of the AC that the introduction of the QMS based on the ISO is one of the changes that took place in 2004 in order to meet customers' requirements in the market. The ISO 9001 standard as being a control system was imposed on the company so as to focus on the regulatory aspects and enable the company to provide better customer satisfaction. Thus, this type of pressure reflects coercive isomorphism. According to Helms *et al* (2012, p. 1122), "ISO provides a forum for the negotiations of global standards that addresses the business and social problems

among firms, nongovernmental organizations (NGOs), and governmental bodies as well as the means to meet the requirements of business and the broader needs of society”. Moreover, Fadaly (2008, p. 208) argued that “the ISO certification was found to be mainly acquired to gain a competitive advantage, as it is highly appreciated in the Egyptian market”. On the other hand, the BC had temporarily used the ISO 9001 standard, i.e. throughout the period (2007 - 2010). In a sense, the implementation of the QMS based on the ISO 9001: 2000 was unsuccessful due to a lack of experience in quality management as well as a conflict between employees regarding the application of this system (see Section 7.7.2.1 for more details). This conclusion is congruent with Zoubi (2011, p. 238) who studied two Libyan privatized companies and found out that the disagreement between members of staff prevented the introduction of total quality management (TQM) and the acquisition of the ISO 9000 certification.

Another type of coercive isomorphism discovered in the current study is competition (competitive pressures). For instance, in case one, the AC introduced the measurement of performance in terms of customer satisfaction as a result of the competitive pressures, particularly after the deregulation of the market in recent years. With more explanation, the AC is known as being the only company that manufactures and sells trucks and buses in Libya. However, in recent years, other private companies have entered the market so as to compete with the AC. They import trucks and buses from abroad and sell them to people in Libya at cheaper prices. In this respect, Jan *et al* (2012, p. 331) pointed out that “competitive pressures arise from the threat of losing competitive advantage”. On the other hand, the BC had not introduced the measurement of performance in terms of customer satisfaction.

With regard to the costing and pricing systems, they were available when both companies were established. Both companies in the present study faced the same circumstances at their inception. Both companies had their costing and pricing systems compulsorily imposed on them by the General People's Committee of Industry (the Ministry of Industry), which is considered as coercive isomorphism. According to the state policy regarding determining the prices, the prices of products in the Libyan public industrial companies must cover the cost of production plus a small profit margin of between 5% and 15%. The margin of profit is determined by the Ministry of Industry. So, this is clear message that the AC and BC were subjected to coercive pressures, which emanated from formal pressures exerted on the companies by the Ministry of Industry (see DiMaggio and Powell, 1983). Furthermore, this pressure might be seen as a factor in deriving convergence that leads to harmonization between companies operating in the same environment or field (see Granlund and Lukka, 1998).

The current study also revealed that the pricing systems were changed in both companies as a response to change in the costing systems. For example, in case one, the AC introduced the marketing costs in 2012 (see Section 6.7.1.4). Therefore, this addition was taken into account in the pricing system. In relation to case two, the BC modified in 1989 the cost and pricing system through introducing the item of the allocation of the rising of the fixed assets from the costing system at the request of the General People's Committee of Control (the Ministry of Control). So, the Ministry of Control also used coercion through forms of control. However, in 2005, this item was removed from the cost and pricing system at the request of the Director of Internal Auditing Office (see Section 7.7.2.2 for more details).

With regard to reporting systems, both companies are using the reports in all departments. For instance, in the case of the AC, all reports are prepared in accordance with the international standard (ISO 9001: 2000) which specifies requirements for the QMS (see Section 6.6.5.1). Put differently, the reports were narrative in all departments of the company in the past, but they were changed in 2004 in accordance with the ISO 9001 standard (see Section 6.6.2.1 and Section 6.7.2.2 for more details). Therefore, there was coercive pressure on the AC to adopt certain reporting structures and models. The conclusion in this section is consistent with the findings of Katten *et al* (2007) and Fadaly (2008) who concluded that the acquisition of ISO certification is one of the important factors that led to change in the MACS.

On the other hand, the BC experienced some progress in the reporting system due to the introduction of the computerized accounting systems in the 1990s as well as the increasing demand for the accounting information in the decision - making process. This result is identical to that reached by Alkizza (2006, p. 225) who found out that the progress in the reporting system in Libyan companies was due to: (i) the implementation of the computerized accounting system in order to get any accounting information and (ii) the increasing demand for the accounting information in the process of decision - making. Moreover, in 2009, the reports in the BC were also changed from detailed to brief reports (see Section 7.6.5.1 and Section 7.7.1.2). Nonetheless, the ISO 9001 system was not used in preparing the reports. This modification occurred at a request from the Management Committee, as well as the Ministry of Industry. The evidence presented in the case of the BC suggests that the Management Committee and the Ministry of Industry coerced changes in the reporting system so as to adopt specific structures of reports.

8.5.2 Mimetic Isomorphism

As mentioned earlier in Chapter Four, mimetic isomorphism occurs as a result of organizations copying or imitating those that are perceived to be more legitimate and successful or those facing external organizational factors that are similar in complexity (DiMaggio and Powell, 1983, 1991). According to Mohammed (2010, p. 249), “imitation is the deliberate attempt by one organization to copy any aspect of another organization’s system. This imitation brings the imitator’s practice (or specific components of it) into reasonably close correspondence with the model being imitated”.

In the current study, mimetic isomorphism can be seen in some events of both companies. In a sense, both companies were established as joint ventures with Italian companies with a similar percentage of partnership which is 25% of the capital. Both companies copied the same traditional management accounting practices used in the two Italian companies, IVECO and Calabrese. Thus, the two companies, the AC and the BC imitated the same traditional management accounting and control systems used in the Italian companies, including planning, controlling, costing, directing and decision making (see Section 6.8.1.4 and Section 7.8.1.5). Therefore, the change occurred as a result of copying these systems. In addition, the General People’s Committee of Industry (the Ministry of Industry) requested from the Libyan manufacturing companies to apply such systems as the costing system at their inception. These pressures by the Ministry played a prominent role in imitation amongst organizations. Thus, these systems or practices also are similar to those applied in other Libyan manufacturing companies. This reflects mimetic isomorphism. Furthermore, both companies adopted the use of computer systems in all departments within the companies in general and

in accounting practices in particular. Thus, this change from manual to computing systems in the AC and BC can be seen in the form of mimetic isomorphism. These findings are consistent with the following argument:

“The model of mimetic processes [...] looks particularly fruitful...It compresses the idea that companies imitate generally accepted models of operation from each other in order to gain as much legitimation for their operation as possible from their operating environment” (Granlund and Lukka, 1998, p. 206).

The finding mentioned above is also consistent with that of Zoubi (2011, P. 238) who studied two Libyan privatized organizations and observed that the companies imitated each other (mimetic isomorphism). He pointed out, for example, that “both companies adopted the use of computer systems in all areas within the organizations generally and in accounting particularly”. Mimetic isomorphism is particularly important for the companies studied in Libya because they are under pressure to appear innovative and, as a result, they tend to model themselves on the foreign companies that they perceive to be more legitimate or successful (DiMaggio and Powell, 1983, p. 152).

Although the two companies, the AC and the BC have covered the five components of the MACS, including planning, controlling, costing, directing, decision-making systems (see, for example, Libby and Waterhouse, 1996; Waweru *et al*, 2004), there are, nonetheless, some differences regarding the MACS sub - systems and practices of the two companies. For instance, the strategic planning system and the ISO 9001 system are being used by the AC. However, such systems have not been employed within the BC (see Chapters 6 and 7 for more details).

8.5.3 Normative Isomorphism

It was argued in Chapter Four that normative isomorphism arises from two main sources which are the influence of professional associations and the need to maintain cultural support (DiMaggio and Powell, 1991). Professionalization such as professional training, certification or accreditation, membership of professional organizations, formal education and university specialists are considered to be influential forces in shaping and designing management accounting systems in organizations (DiMaggio and Powell, 1983, 1991). In relation to the cultural support, Meyer and Scott (1983) argued that the degree of cultural support enables organizations to get institutional legitimacy. Thus, “organizational legitimacy refers to the degree of cultural support for an organization, that is, the extent to which the array of established cultural accounts provides explanations for its existence, functioning, and jurisdiction, and the lack of alternatives” (Meyer and Scott, 1983, p. 201).

In the two Libyan companies studied, the researcher found out that there are some potential normative influences on the design and use of the MACS. These normative influences are professional and organizational characteristics (e.g., the number of units and the number of employees). In relation to professionalization, the MACS of both companies (the AC and the BC) have been influenced by what managers and employees have learned at Libyan universities and professional training centers. Additionally, the hiring of experts was from abroad, for example and the costing system in both companies was prepared by some Italian as well as Egyptian experts in accounting. This has resulted in the characteristics of professionalization, which are important institutional components of normative isomorphism (see DiMaggio and Powell, 1983, 1991). Thus, these pressures highlight the role of university

graduates and foreign experts in accounting in the convergence towards homogenization of the MACS in Libyan companies (see also Granlund and Lukka, 1998). The result mentioned above is congruent with the finding of Zoubi (2011, p. 232) who found out that management accounting systems have been influenced by normative pressures, such as universities and research centres as professional bodies. In the case of the BC, organizational characteristics (e.g., the number of units and the number of employees) were identified as the form of normative isomorphism. These organizational characteristics may determine the range of possible change in the MACS such as the estimated budget. These findings reported here are consistent with those of Hussain and Hoque (2002) who found out that the experience of professional and organizational characteristics are considered to be influential forces on the performance measurement practices (PMS) design in service organizations. They also consider these factors as normative influences (see Hussain and Hoque, 2002, p. 163). However, the above finding about the organizational characteristics as normative influences is not similar to Zoubi's (2011) study findings of two Libyan privatized organizations.

Despite the aforementioned normative pressures in our case studies, the study's results are inconsistent with some of the findings of the preceding studies in management accounting, in which the role of management accounting has changed (Scapens, 2000). In a sense, the management accounting literature indicated that the normative pressures lead to change the role of management accountants. Nonetheless, this has not occurred in the AC and the BC and the barriers still exist between the managers and accountants in both companies. In this respect, Granlund and Lukka (1998, p. 201) provide an explanation for this situation that referred to the argument mentioned above in this section as follows:

“A lot has recently been written especially in the UK and the USA about the change in the accountants’ role, arguing for the need for this change in a normative style. Empirical evidence on the realization of these pleas, or on their emergence or change tendencies in practice, is so far scarce. Our evidence indicates that these claims are increasingly finding their real life counterparts in Finnish management accounting practice. Overall, it seems that the Finnish management accountant profession is trying to actively answer the current managerial challenges and information needs”.

8.6 Market Forces and the MACS

Previously, in Chapter Four, competitive isomorphism or market forces were identified as a probable driver of organizational practices (see Section 4.4.1). This thesis therefore contributes to NIS research in management accounting by identifying the impact of market forces on the MACS. Initial analysis of NIS has downplayed the role of the market and competitive forces (DiMaggio and Powell, 1983). Nonetheless, later studies (e.g., Powell, 1991; Oliver, 1992; Greenwood and Hinings, 1996; Mohammed, 2010) have recognized the influence of such competitive forces on organizational practices. For instance, Oliver (1992, p. 21) observed that “...economic considerations should be incorporated into institutional explanations of organizational activities in order to specify more precisely the particular situations or conditions within which institutionalized activities are most likely to persist or endure”. In Libya, Alkizza (2006, p. 205) pointed out that “the market situation has changed as a result of the deregulation of economy in the early 2000s”. This created a competitive market environment and affected negatively the sales and market shares of the Libyan state-owned companies (ibid). In addition, competition has increased in the Libyan market as a result of change in the political system of the Libyan state after the 2011 Libyan revolution (see Chapter 2). The change of the political and economic system removed barriers to

competition in the Libyan market and significantly increased the level of competition between the public and private companies. This section therefore discusses how the MACS in the two studied companies were shaped by pressures from the competitive environment of the companies.

In our case studies, the AC was dominating the whole Libyan domestic market in terms of its products of trucks and buses. This is also the case of the BC in the production of trailers. In the 2000s, the situation changed as a result of deregulation of the economy. This created a competitive market environment and affected negatively the sales of the two companies. Both companies, as identified above, have encountered market competition mainly from both private Libyan companies and foreign products in terms of the selling prices and product design. This competition has affected the financial performance of both companies. The change in emphasis also affected the MACS in both companies.

In the case of the AC, it was stated in Chapter Six that competition has affected the company's MACS such as strategic planning, performance measurement in terms of customer satisfaction, the cost and pricing system and the estimated budget. Competition has been considered as the main factor in design and implementation of new management accounting system (see Amat *et al*, 1994; Fadaly, 2008). For example, strategic planning was introduced to the AC as a result of the increasing competition. The Director of Strategic Planning emphasized that the company must adopt strategic planning processes to thrive in the new competitive environment. This finding is consistent with Moll (2003, p. 192) whose case study was Griffith University in Australia and pointed out that "universities must adopt strategic planning processes to thrive in the newly competitive and commercial environment". As argued by Mia and Clarke (1999), an organization needs to adapt quickly

to face threats and opportunities in the competitive environment and that they design an appropriate control system for this purpose. If an organization faces increasing competition in its market and yet fails to adopt and implement appropriate strategies to deal with such competition, its performance will decrease. In relation to performance measurement in terms of customer satisfaction, it was also pointed out in Chapter Six that the AC was a monopoly company and was selling its products according to the orders of customers. However, this situation has recently changed completely due to the competitive market conditions. Therefore, the AC has implemented some extra services aiming to satisfy customers. This result is congruent with that reached by Mohammed (2010, p. 264) who argued that the increasing competition in the banking sector has created the impetus for change; hence the shift in focus on customers and the strategies of competitors. Hussain and Hoque (2002) also found out that competition is one of the factors which affect performance measurement systems.

With regard to the cost and pricing system, it was discussed earlier in Chapter Six that the costing system was compulsorily imposed by the General People's Committee of Industry (the Ministry of Industry). Therefore, there was a coercive pressure on the AC to adopt the costing system. The empirical evidence provided in Chapter Six also reveals that the AC has introduced the direct allocation of marketing costs system to the costing system due to the competitive pressures. In 2012, this system (the direct allocation of marketing costs) was implemented after the opening up of the market as a result of change in the Libyan political system. To clarify, the production of trucks and buses was monopolized in the past by the Libyan state, but now, i.e., after the 2011 Libyan revolution, there are several competitors (private companies) in the same specialty, sales and in the same fashion in the domestic

market. Accordingly, some changes in the pricing system have taken place as a response to the change in the costing system, i.e., the addition of the marketing costs into the costing system has been taken into account in the preparation of pricing system. It can be concluded that coercive and competitive pressures have affected the cost and pricing system. This argument is consistent with Modell's (2002) finding, who observed that the interplay between coercively imposed cost accounting systems and market competition is more apparent in deregulated public sector organizations (see also Tsamenyi *et al*, 2006, p. 424).

In relation to the impact of competition on the estimated budget, it was reported in Chapter Six that some of the interviewees pointed out that there are a number of the changes in the estimated budget of the AC as a result of competition and changes in the Libyan government's laws and regulations (e.g., production taxes), especially in recent years. For example, the Director of Costs and Business Control mentioned that the supplies provided from the foreign partner (IVECO) are one of the items that have been changed in the budget, i.e., importing the semi - finished materials in order to be ready for installation rather than importing them disjointed. In addition, the AC has reconsidered its selling prices, i.e., reducing its selling prices as a result of the domestic competition. Therefore, this has had a direct impact on the estimated budget. In this case, there is interplay between the requirements of the regulatory environment (coercive pressures) and the need to design systems to maintain efficiency and remain competitive (market forces) (see also Tsamenyi *et al*, 2006). In addition, in our case study company, systems were designed to cope with pressures from both the institutional and market environments (see also Powell, 1991; Scott, 1991).

In case two, the BC was also dominating the Libyan domestic market regarding the production of different types of trailers (see Chapter 7). However, in 2000, the situation changed as a result of deregulating the Libyan economy. This created a competition with the private sector which offers better selling prices and good salaries for employees. Therefore, this drove some excellent producers in the company to move to work in the private sector, where the number of producers reached 20, in order to improve their standards of living and get better salaries up to 3 times the salary offered by the BC. Consequently, the competition with local traders sometimes has an effect on the estimated budget of the BC through reducing the costs or expenses in the company. Thus, if the BC wants to be able to compete in the market; it should reduce its costs in spite of the fact that this reduction has a negative side on the company.

It was also identified in Chapter Seven that the market pressures (unfair competition) have influenced the company in terms of reducing costs and selling prices. After the 2011 Libyan revolution and the ensuing change in the political system the situation also changed as a result of the deregulation of the Libyan economy. This has increased the competitive market environment and influenced negatively the sales of the BC. As mentioned earlier, the Director of Internal Auditing stated that:

“we had been working as a monopoly company supported by the Libyan state, but the economic deregulation after the Libyan revolution in 2011 has decreased this support and put us in a competitive environment, with many other operational problems created by the Libyan state policies”.

The Head of the Marketing and Export Department also mentioned that the Libyan private company, the Technology Company has obtained the companies' contracts that were in the

AC. Thus, this private company became a competitor with the AC and the BC. Moreover, the BC contains manufacturing stages and each stage has its costs and the cost of manufacturing in Libya is very high. But, in the field of trading trucks and buses in Libya, private companies do not have manufacturing costs in their activities because they can import trucks and reservoirs (tanks) ready from abroad. However, the Libyan state - owned manufacturing companies and private companies are importing goods and raw materials at the same price. Hence, the Libyan state is supposed to reduce costs for public companies. It can be concluded that both companies in this study were affected by competition and they have all experienced remarkable changes in their costs, selling prices and financial performance as a result of competition. This is consistent with the study conducted by Alkizza (2006, p. 205) who found out that competition has negatively affected the sales and financial performance in the Libyan state - owned companies.

8.7 Intra - organizational Power Relations and the MACS

In this section, the debate addresses one of the limitations in NIS identified in Chapter Four. It has been argued in that chapter that prior NIS analysis has been criticized for ignoring the issue of power relations between the different actors and its inability to demonstrate the role of management in accommodating or reconciling the competing interest (see for example DiMaggio and Powell, 1983). This limitation in NIS has led some recent researchers in NIS to consider the issue of power and agency. For instance, Collier (2001) and Modell (2002) recently encouraged other studies in management accounting using NIS to expand their analysis to comprise the relations of power. Organizational power relationships engender conflicting effects, either driving or hindering change in the organization's systems (see for

example, Burns, 2000; Collier, 2001; Tsamenyi *et al*, 2006). Collier (2001) pointed out that organizational power is conflictual when the interests of actors are divergent. In contrast, Giddens (1976) and Burns (2000) mentioned that power has the potential to be enabling characters if there are common interests among different groups in an organization.

In addition, the link between legitimacy and power has been debated in the literature. For example, Collier (2001, p. 467) argued that “the power of institutions arises both from the need for legitimation and from isomorphic processes”. Therefore, organizations need the support of governmental bodies where their operations are regulated. Organizations also rely on the acquisition of resources to support purposive activity. The role of the state, particularly through legitimation processes, is a powerful one and this is obvious in some organizations (ibid, p. 467). Oliver (1991) also argued that the role of interest and agency affects the institutionalization of organizational practices. In our case studies (the AC and the BC), the evidence gathered during the present study revealed that organizational power relations were prevalent in the two companies studied and this power shaped the MACS. The remainder of this section discusses issues around intra - organizational power relations relating to some of the MACS in each case of the companies studied.

In the case of the first company, the AC, it was identified in Chapter Six that there was power interplay between the top management, offices and other administrations in the company. This interplay of power affected the design and use of the MACS. For instance, the company's rules and regulations (coercive pressures) are constantly changing by the top management which has the main role in the processes of decision making. Thus, the administrations' managers and heads of offices obeyed these laws and regulations that have been imposed by the top management. With regard to the relation between the top

management and the costs management, the AC's top management has not taken any actions concerning the explanatory memorandum referred from the administration of costs. This memorandum demonstrates reducing selling prices without giving any indication of whether it was as a result of a difference in the market or customer (see Section 6.8.3 for more details). In addition, this issue was not mentioned in the monthly and annual reports of the company's internal auditing. Therefore, the top management had a significant impact on the cost and pricing system because it sometimes decided and made decisions regarding selling prices without referring to the administration of costs. In this regard, the top management team implemented power over processes, which includes decision - making processes, participation, agenda, etc (see Hardy, 1996: p. S7). The results mentioned above are congruent with Burns (2000) who observed that power mobilization by top management provides an impetus for implementing accounting change.

Moreover, there was power over decision making used by the dominant group in the AC, including the General Manager of the company and the Financial Director. With more explanation, the final decisions concerning any subject in the company were made by these two key actors. The participation of other Management Committee members in any decision making was very limited, because most of the company's affairs were discussed in the General Manager Office of the company, with discussion taking place between the General Director of Financial Operations and the General Manager of the company. Therefore, this group had a significant impact on the MACS identified in Chapter Six, because it sometimes decided and made decisions without referring to other administrations in the company. In this case, this dominant group also used power over processes in order to prevent the other

managers and heads of departments from participating fully in decision making. The argument mentioned above is consistent with Hardy (1996: p. S7), who states that:

“The form of power resides in organizational decision making processes which incorporate a variety of procedures and political routines that can be invoked by dominant groups to influence outcomes by preventing subordinates from participating fully in decision-making”.

It was also identified in Chapter Six that the Chairman of the Board of Directors is an engineer and the same applies to the person acting as the General Manager of the company who is interested in hiring engineers for the company rather than other people who have different qualifications, such as accountants. In this case, the General Manager employed his power over resources. According to Hardy's (1996, p. S7) categorization, this kind of power (power over resources) can be derived from the ability to hire and fire, rewards, punishments, funding, authority, expertise, etc. The result mentioned above is consistent with that of Zoubi (2011, p. 242) who found that the Costing Departments in the two Libyan privatized companies, each supported by a Financial Manager and Senior Manager, prepared a pricing study. The Costing Departments, Financial Managers and Senior Managers in both privatized companies used power of the resources in the form of experience, which the Costing Departments characterize in the complexity of cost calculation. Moreover, the rest of the companies' members were prevented from participating in pricing decisions (ibid).

In the AC, there was also conflict and resistance that occurred between the senior managers of the company and costs accountants which inhibited change in the costing system of the AC. With more explanation, the company wanted to hire academics and experts in 2009 from other companies in order to develop the costs administration in the AC. Furthermore, the

company wanted to send some employees from the administration of costs to take training courses abroad. However, these programmes were cancelled and changed to another programme; letters were sent to the employees of the costs administration to indicate that the employees had become a team to develop the costs administration (see Section 6.9 for details). Consequently, this conflict or resistance prevented the change in the costing system at the administration of costs. It can be argued that power over processes was used by the senior managers. This type of power resides in the processes of decision making that incorporate a variety of rules and routines that can be implemented by the top management to influence the outcomes of decision (see Hardy, 1996).

In the case of the second company, the BC, it was argued in Chapter Seven that the Libyan government, as represented by the Ministry of Finance, appointed some Financial Controllers who had worked in Libyan organizations as observers in the mid 1980s. As mentioned earlier, these pressures can be seen as coercive isomorphism forced on the companies by the Libyan government, as well as a convergence factor that leads to harmonization between companies operating in the same environment (see Granlund and Lukka, 1988). The main task of financial controllers was to monitor daily operations and implement tight controls on the procedures in the companies, including the estimated budgets. They had also been given power for signing cheques and, therefore, were responsible for the finances. Thus, they used power over resources, which were related to the control of money (Hardy, 1996, p. S7). In this case, the conflict was created between the top management and financial controllers through the application of control on the estimated budgets. This conflict between the top management and the financial controllers is identical to Hardy's classification of power over resources such as "information, expertise, political access, credibility, stature and prestige,

access to higher echelon members,...,rewards and sanctions” (Hardy, 1996, p. S7). On the other hand, the top management employed its power over processes to prevent the financial controllers from participating in decision - making processes. This conclusion is consistent with the findings of Zoubi (2011, p. 181), who found out that “there was a conflict between the senior management and the financial controllers over the application of the budgetary control approach” in his two selected Libyan privatized organizations.

In the BC, there was also power play between the management committee and the organizational actors, including the department’s managers and accountants. This interplay of power affected the design and use of the MACS, such as the estimated budgets and the style of reports. In other words, the Management Committee of the BC requested from the accountants that they introduce the value of the overdraft in the estimated budget at the end of 2009. Therefore, the cash balance (overdraft) was included in the estimated budget at the end of that year according to the instructions of the Management Committee (see Section 7.7.1.1). With regard to power relationships between the management committee and the department’s managers, the Management Committee had compulsory instructions directed to all departments of the company in order to change the style of reports; from comprehensive and detailed reports to brief reports. Therefore, this type of change is due to a coercive pressure on the departments’ managers in the company. Thus, the management committee used its power over processes. Accordingly, the present researcher concludes that the management committee of the BC has the authority as well as the degree of autonomy to make any changes in any system used in the company. In this respect, Innes and Mitchell (1990) argued that the degree of top management autonomy might affect the change in the internal systems; including management accounting practices. In addition, Alkizza (2006, p.

214) argued that the management of organization has the authority to make any changes in any system utilized to generate information for an organization's internal purposes. Nevertheless, some state regulations still affect and limit the autonomy of the management of organization (ibid).

It was also reported in Chapter Seven that there are conflicts between the administration's managers in the BC. For instance, the Financial Manager of the company is acting with complete freedom and without consulting other managers in the company concerning the recruitment of new staff, giving rewards without reference to other managers, and also giving financial subsidies from the value of the stationery without taking permission from the management committee. Thus, the Financial Manager used his power over resources (e.g., hiring new staff, rewards), as well as power over the processes of decision making. Powers (the managers' pressures) also engendered a change in the costing and pricing system. For example, the Director of the Internal Auditing Office is a key factor in changing part of the costing and pricing system in the company. In 2005, he cancelled an item of the costing system called the allocation of the rising / elevation of the fixed assets. So, this type of power could be considered as power of processes.

Furthermore, there was a conflict among the managers in the BC concerning the weakness of the quality control employees in applying the QMS based on the ISO 9001 standard. The ISO system was cancelled in 2010 at the requests from some managers in the BC, i.e., the disagreement among managers prevented the implementation of QMS based on the ISO 9001 standard (see Section 7.7.2.1). In this context, previous studies (e.g., Modell, 2002; Covalevski and Dirsmith, 1988; Greenwood and Hinnings, 1996; Collier, 2001; Tsamenyi *et al*, 2006) have suggested that the ability to resist the implementation of a new practice

depends on whether or not the organizational actors can mobilize a sufficient amount of power to resist the practice. The findings regarding the unsuccessful implementation of the ISO system in the BC are similar to those of Burns (2000) and Zoubi (2011), whose case study companies experienced unsuccessful change of the use of the ISO system. In the first case study, the AC, it was the opposite in the company experienced successful implementation of the ISO system (see Section 6.7.2.1).

8.8 Resistance to Change

Resistance to change is a subject that has received significant attention in the management accounting literature (see for example, Scapens and Roberts, 1993; Dawson, 1994; Siti - Nabiha, 2000; Jansen, 2011). According to Dent and Goldberg (1999), the first published work on resistance to change was by Coch and French (1948), who concluded that one way to reduce resistance was to have members of the organization participate in the change programme. In our case study company, the AC, several interviewees pointed out that there was no major objection or resistance from the AC's managers and employees to the introduction of strategic planning, the direct allocation of market costs and the QMS. In contrast, the BC did not introduce a strategic planning system, but some modifications have taken place and faced some resistance. The remainder of this section, therefore, discusses some issues relating to resistance to change in management accounting in both companies as follows:

1) The State's Laws and Regulations: as reported in Chapters Six and Seven, the taxes imposed by the Libyan state (or the Ministry of Industry) has significantly affected the MACS of the two companies as well as the liquidity in them. Therefore, imposing these laws

and regulations is one of the problems and difficulties facing the AC and the BC in terms of developing their accounting systems (see Section 6.9 and Section 7.9).

2) Qualifications and Experience of the Employees: In the case of the BC, the researcher observed that most of the employees, including the managers of the company are graduates from the same universities; called Garyounis University (University of Benghazi) and Al-Fatah University (University of Tripoli) (see Section 2.2.3). Thus, university education had influenced the scientific background of the employees which, in turn, had also affected the management accounting practices in the company, because it was concentrated on the traditional management accounting systems (e.g., the estimated budget and costing systems) rather than the advanced accounting systems (e.g., ABC and BSC). That is also the case in the AC. Arguably; these modern management accounting systems are not utilized in both companies and can be traced to a lack of familiarity; experience and knowledge. This finding is consistent with that of Zoubi (2011, p. 252) who found out that the lack of qualified accountants is one of the reasons why the privatized Libyan companies have not adopted modern methods of management accounting, such as ABC and BSC. Moreover, the qualifications and experience of the employees led to resistance in applying the QMS. For instance, the employees at the Quality Management Office did not have the adequate experience in applying it successfully, because all of them are engineers and they do not have qualifications in accounting and management. The result mentioned in this section is also consistent with that reached by Kaplan (1986) who stated that a lack of knowledge and experience with the new systems is one of the possible reasons for resistance to change.

Furthermore, Argyris and Kaplan (1994) stated that an adequate education and sponsorship process allows supporters of change to obtain management support for the proposed idea. In addition, inadequate internal commitment will result in resistance to the process of change in management accounting, because the purpose of encouraging commitment is to stimulate individuals to implement the new ideas and to take effective actions based on their implications (ibid).

3) Resistance from the Managers of the Companies: In the first case, the AC, it was identified in Chapter Six that the lack of support of the General Management caused resistance to change in the costing system. In a sense, the company did not support the costs administration in the following: (i) hiring academics and experts in the area of management accounting; (ii) dispatching employees from the costs administration to take courses abroad and (iii) the company management did not allow for adding new employees in the costs administration. This means that there is a lack of interest at the company in the costs department (see Section 6.9). In this context, it has been argued in the management accounting literature that insufficient support or a lack of explanation at all levels of the organization such as managers, employees and owners will cause resistance to change in management accounting. Therefore, it appears that if there has been inadequate support provided by managers and senior company management during management accounting innovation, they may fear that, with innovation, their activities will become more visible to management (see Kaplan, 1986; Innes and Mitchell, 1990; Scapens and Roberts, 1993).

In the second case, the BC, it has been indicated in Chapter Seven that the conflicts between the company's managers is one of the factors that caused resistance to change in the MACS. For example, there was a conflict between the managers concerning the weakness of the

quality control employees in applying the QMS based on the ISO 9001 standard. Furthermore, the culture of the employees is one of the factors behind resisting change in the MACS. For instance, some employees in some administrations of the company do not accept criticism from the financial auditor, especially the commercial administration in the company (see Section 7.9 for more details).

4) Mismanagement and Financial and Managerial Corruption: It has been indicated in Chapter Six that the financial and managerial corruption in the AC led to an increase in the company's debts at a very high rate. Moreover, the company had not established a strong economic and administrative structure in the past 30 years in order to face any changes in the market and the state. This has a negative impact on the MACS in the company. In the past, the AC was monopolizing the field of manufacturing and trading of trucks. Moreover, the AC had no competition from private companies in Libya. Nonetheless, after the change in the political system in Libya in 2011, there are now new competitors in the domestic market. Some of these competitors were former managers in the AC, who embezzled much money in order to set up private companies in the field of trucks. It was also argued in the first case that there is a lack of regulations or a constitution in the AC that determine the relationship between the costs administration and the other departments in the company. Therefore, all these issues raised in this section are resistant to change in the MACS of the company.

8.9 Summary

In Chapters Six and Seven, the MACS and practices of two large Libyan state - owned manufacturing companies were discussed. The two companies studied are the AC and the BC. This chapter has provided an overview of the two companies, including their

establishment and their capital. The chapter has also discussed the objectives of the companies and the change in the organizational structure of both of them. In addition, the chapter has discussed three different types of change in the sub - systems of the MACS. These types of change are (i) the introduction of new systems (addition) in the AC including strategic planning, the QMS, direct allocation of marketing costs and performance measurement in terms of customer satisfaction; (ii) modification in the management accounting information (output modification) in both companies including the estimated budget and the reporting system and (iii) removal of a management accounting system with no replacement (reduction) such as removing the QMS and removing the allocation of the rising / elevation of the fixed assets from the costing and pricing system. Moreover, both companies have clearly witnessed gradual changes in some of the MACS. It should also be noted that most of the MACS used in both companies are traditional systems.

The chapter has also discussed several findings vis - à - vis the new institutional theory framework which underpins the study (see Section 4.7). The uncertain environment in Libya (e.g., the uncertain economic and political circumstances) seemingly created pressures on both companies to improve their MACS, including the planning systems, controlling systems, costing systems and decision - making systems (see Chapters 6 and 7). It is the contention in the present research that the pressures exerted by these external factors forced the two companies to adopt new structures and processes, including the MACS.

The theoretical framework of the thesis used to analyze the findings is based on the assumption that institutional forces (coercive, mimetic and normative influences) interact with market forces and intra - organizational power relations to influence the design and use

of the MACS (see Tsamenyi, *et al*, 2006). It can be concluded that the isomorphic changes in the MACS in the two Libyan state - owned manufacturing companies have been driven by several factors or influences including political pressures and organizational legitimacy, the Libyan government's laws and regulations, leading organization's pressures (e.g., ISO), customer satisfaction, copying the best practices from other companies, the organizational characteristics, competitive pressures and power (the managers of the companies). It is also concluded that the notion of contingency is still relevant to institutional theory. Finally, the chapter has discussed the factors that caused resistance to change in the MACS in the two selected Libyan state - owned manufacturing companies. These resistant factors include the state's laws and regulations, qualifications and experience of the employees, the managers of the two companies, mismanagement and financial and managerial corruption.

Having discussed the main findings of the study which were in line with the new institutional sociology theory proposed in Chapter Four, the following chapter, Chapter Nine, will provide a summary and conclusion to the study as a whole.

Chapter Nine: Summary and Conclusion

9.1 Introduction

This thesis comprises nine chapters. Chapter One provides an outline about the research focus and research questions. The chapter then discusses the rationale and motivation of the current study as well as the reason for the choice of the selected organizations. It also summarizes the conceptual framework as well as outlining the research methodology and methods adopted in the current study. The Libyan business environment, including its socio - cultural environment, economic environment, political and legal environment and accounting profession are discussed in Chapter Two. Chapter Three reviews the extant relevant literature in the area of change in management accounting. In particular, different types of change in management accounting, the factors that might cause change, perspectives on change in management accounting and resistance to such change are discussed. Chapter four outlines the theoretical framework of institutional theory that underpins the current study of MACS change. This theoretical framework has been selected by focusing on the NIS perspective (see DiMaggio and Powell, 1983, 1991).

Chapter Five discusses the research methodology and methods employed. In particular, the current thesis uses the interpretive methodological approach to provide explanations for the research topic and change in management accounting. The philosophical assumptions of the research pointed towards the use of qualitative methods of investigation. To this end, the study used triangulation methods of data collection, including semi - structured interviews, direct and participant observation and document analysis. A description of these methods has also been provided in Chapter Five. Chapters Six and Seven present the findings of the two case studies about the MACS change and each case study has been presented in a separate chapter. In Chapter Eight, the most

important results of the two case studies are compared and discussed. In addition to this, the results of the case studies have been interpreted in accordance with the NIS perspective of institutional theory. The remainder of this chapter is divided into four sections. The next section presents the main results of the study. This is followed by the discussions of the main contributions of the study to knowledge. The final two sections discuss the limitations of the study and areas for future research respectively.

9.2 The Main Findings of the Study

This section of the chapter summarizes the major findings of the study. The initial idea was to investigate the entire MACS of the two companies, the AC and the BC. Therefore, the study found out the used MACS in both companies. The used MACS in the AC are the strategic planning, the estimated budget, operations planning (production), the QMS, performance measurement in terms of customer satisfaction, direct allocation of manufacturing overhead, direct allocation of marketing costs, the pricing system, the incentives system and the reporting system. In the case of the BC, the used MACS are the estimated budget, performance measurement system, the cost and pricing system, the incentives and financial subsidies system and the reporting system. It can be concluded that most of the used MACS are traditional systems in both companies.

Some of the used MACS mentioned above have been introduced and modified in recent years as a result of the change in the Libyan business environment. The additional systems in the AC include the strategic planning, the QMS, the performance measurement in terms of customer satisfaction and the direct allocation of marketing costs, whereas the amended systems in both companies include the estimated budget and the reporting system. However, other systems have been removed from the BC such as the QMS (ISO 9001: 2000) and the allocation of the rising / elevation of the fixed assets in the costing

system. It can be concluded that there are three types of change in management accounting (dimensions of change) in our case companies (see Table 8.1 in Chapter 8, see also Chapters 6 and 7 for more details). These types of change are the (i) introduction of new management accounting systems (addition), (ii) modification in the management accounting information (output modification) and (iii) removal of management accounting systems with no replacement (reduction). Moreover, the gradual change was in the management accounting and control systems used, rather than the adoption of advanced management accounting techniques such as the ABC and BSC.

The study draws on the NIS perspective to explain how and why the two companies adopted the MACS. However, the NIS has been criticized for paying little attention to issues of power (Collier, 2001) and market forces or competitive forces (Powell, 1991, Oliver, 1992, Greenwood and Hinings, 1996 and Tsamenyi *et al*, 2006). In terms of competitive forces, Oliver (1992, p. 21) observed that “...economic considerations should be incorporated into institutional explanations of organizational activities in order to specify more precisely the particular situations or conditions within which institutionalized activities are most likely to persist or endure”. To overcome the above limitations of the NIS, the study incorporates institutional isomorphism (including, coercive, mimetic, and normative isomorphism) with market forces and intra - organizational power relations. In other words, the changes in the Libyan business environment (e.g., the political and legal system, regulations and the economic reforms) have caused changes in the MACS of both companies (institutional isomorphism). These changes also introduced competition in the industrial sector which again affected the design of MACS in both companies (competitive isomorphism). The design of the MACS was also affected by power and agency (intra - organizational power relations). These findings are briefly summarized below.

Institutional forces: The study found out that several institutional factors induced changes in the MACS of both companies. Drawing on institutional theory, the study highlights the three main institutional isomorphic pressures identified as driving change in organizations which are coercive, mimetic and normative isomorphism (DiMaggio and Powell, 1983, 1991 and Oliver, 1992).

In terms of the **coercive isomorphism**, the study found out that the estimated budgets of both companies have been affected by political pressures, political decisions and the Libyan government's laws and regulations (or the Ministry of Industry's regulations), which are considered as coercive pressures (regulatory pressures). In relation to the political pressures, the researcher found out that political pressure for change is a major pressure in the Libyan industry sector. For example, an embargo was imposed by the UN on Libya during the 1990s. Regarding the impact of the government's laws and regulations on the budgets, the issuance of laws and regulations (e.g., imposing taxes and reducing the number of employees) continuously and unexpectedly affected significantly the activity of the two companies in general and the estimated budgets in particular. Moreover, the customer satisfaction (e.g., the product specifications according to customer demand) is also considered as coercive pressure that has been taken into consideration while preparing the estimated budget in the BC. The empirical evidence also revealed that the instructions imposed by the Management Committee of the BC (the Board of Directors) reflect coercive isomorphism. To clarify, the change in the estimated budget has occurred in some items (e.g., the cash balance, the value of the overdraft and the item of maintenance and wages) at the request of the company's management committee (the Board of Directors).

In the case study of the AC, it was found out that the introduction of the QMS (ISO 9001: 2000) is one of the changes that have taken place in 2004 in order to meet the customers' requirements in the market. The ISO 9001 standard as being a control system has been imposed on the company so as to focus on the regulatory aspects and enable the company to provide better customer satisfaction. The study has thus provided evidence to support the argument that organizations are likely to introduce new control systems as a result of coercive isomorphism (DiMaggio and Powell, 1991 and Hussain and Hoque, 2002). On the other hand, the BC had temporarily used the ISO 9001 standard, i.e. throughout the period (2007-2010). In a sense, the implementation of the QMS based on the ISO 9001 was unsuccessful due to a lack of experience in the quality management as well as a conflict between the employees regarding the application of this system. Another type of coercive isomorphism found out in the study is competition. For example, in case one, the AC has introduced the system of performance measurement in terms of customer satisfaction as a result of the competitive pressures, particularly after the deregulation of the market in recent years. On the other hand, the BC had not introduced the measurement of performance in terms of customer satisfaction.

With regard to the cost and pricing systems, Both companies had their costing and pricing systems compulsorily imposed on them by the General People's Committee of Industry (the Ministry of Industry), which is considered as coercive isomorphism. According to the state policy regarding determining the prices, the prices of products in the Libyan public industrial companies must cover the cost of production plus a small profit margin of between 5% and 15%. The margin of profit is determined by the Ministry of Industry. So, this is a clear message that the AC and BC were subjected to coercive pressures, which emanated from formal pressures exerted on the companies by the Ministry of Industry. The results also revealed that the pricing systems have been changed in both companies

as a response to change in the costing systems. For example, in case one, the AC has introduced the marketing costs in 2012. Therefore, this addition has been taken into account in the pricing system. In relation to case two, in 1989, the BC modified the cost and pricing system through introducing the item of the allocation of the rising / elevation of the fixed assets from the costing system at the request of the General People's Committee of Control (the Ministry of Control). So, the Ministry of Control has also used coercion through forms of control. However, in 2005, this item was removed from the cost and pricing system at the request of the Director of Internal Auditing Office.

With regard to reporting systems, both companies are using the reports in all departments. For instance, in the case of the AC, all reports are prepared in accordance with the international standard (ISO 9001: 2000) which specifies requirements for the QMS. Put differently, the reports were narrative in all departments of the company in the past, but they changed in 2004 in consistent with the ISO 9001. So, there was coercive pressure on the AC to adopt certain reporting structures and models. On the other hand, the BC has experienced some progress in the reporting system due to the introduction of the computerized accounting systems in the 1990s as well as the increasing demand for accounting information in the decision - making process. Furthermore, in 2009, the reports in the BC were also changed from detailed reports to brief reports. But, the ISO system has not been used in preparing the reports. This modification has been implemented at the request of the Management Committee as well as the Ministry of Industry. The Management Committee and the Ministry of Industry have coerced changes in the reporting system so as to adopt specific structures of reports in the company.

The second institutional force discussed was **mimetic isomorphism** which occurred because of attempts by an organization to copy or imitates structures and practices of

more successful organizations (DiMaggio and Powell, 1991). The AC and the BC were established as joint ventures with Italian companies at similar percentage of partnership which is 25% of the capital. Both companies have copied or imitated the same traditional MACS and practices that have been used in the two Italian companies: IVECO and Calabrese Company. Therefore, the change occurred as a result of copying these systems. In addition, the General People's Committee of Industry (the Ministry of Industry) requested from the Libyan manufacturing companies to apply such systems as the costing system since their inception. These pressures by the Ministry played a major role in imitation amongst organizations. Thus, these systems or practices are also similar to those applied in other Libyan manufacturing companies. This reflects mimetic isomorphism. Moreover, both companies adopted the use of computer systems in all departments within the companies in general and in accounting practices in particular. Thus, this change from manual to computing systems in the AC and the BC can be seen in the form of mimetic isomorphism.

The third institutional force discussed was **normative isomorphism** which emanates from the influence of professional associations and the need to maintain cultural support (DiMaggio and Powell, 1991). The study found out that there were some potential normative influences on the design and use of the MACS. These normative influences are professional and organizational characteristics (e.g., the number of units and the number of employees). In relation to professionalization, the MACS of both companies have been influenced by what managers and employees have learned at Libyan universities and professional training centers. Furthermore, the hiring of experts from abroad, for example, the costing system in both companies was prepared by some Italian experts in accounting, as well as some Egyptian accountants. This has resulted in the characteristics of professionalization, which are important institutional components of normative

isomorphism (see DiMaggio and Powell, 1983, 1991). In the case of the BC, organizational characteristics (e.g., the number of units and the number of employees) were also identified as the form of normative isomorphism. These organizational characteristics may determine the range of possible change in the MACS such as the estimated budget.

In terms of **competitive isomorphism**, it was found out that competition has affected negatively the sales of the AC as a result of the deregulation of the economy in the 2000s. The company has encountered competition mainly from both private Libyan companies and foreign products in terms of the selling prices and product design. The change in the Libyan market also affected the MACS in both companies. In the case of the AC, the increased competition in the market has affected the company's MACS such as the cost and pricing system and the estimated budget. It also led the company to introduce new systems such as strategic planning and performance measurement in terms of customer satisfaction. Fadaly (2008) argued that competition has been considered as a key factor in the design and implementation of a new management accounting system.

The empirical evidence also revealed that the AC has introduced the direct allocation of marketing costs system to the costing system as a response to the competitive pressures. In 2012, this system (the direct allocation of marketing costs) was implemented after the opening up of the market as a result of the change in the Libyan political system in 2011. The study also identified that the market pressures (unfair competition) have influenced the BC in terms of reducing costs and the selling prices. After the 2011 Libyan revolution, the situation also changed as a result of the deregulation of the Libyan economy due to the change in the political system. Therefore, this change in the market environment has influenced negatively the sales of the BC. It can be concluded that both companies in this

study were affected by competition and they have all experienced a remarkable change in their costs, selling prices and financial performance as a result of competition.

In terms of **intra - organizational power relations**, the study found out that in the two companies there was power play between various managers when it comes to the design of MACS (see also Collier, 2001 and Tsamenyi et al, 2006). In the AC, the most significant power relations were observed between the top management, offices and other administrations in the company. This interplay of power affected the design and use of the MACS. For instance, the top management had a significant impact on the cost and pricing system because it sometimes makes decisions regarding selling prices without referring to the administration of costs. Thus, the top management team has implemented power over processes in the form of decision - making processes (see Hardy, 1996: p. S7). Additionally, there was a conflict between the senior managers of the company and the costs accountants which prevented change in the costing system of the AC. It can be argued that power over processes was used by the senior managers.

Furthermore, there was power over decision - making used by dominant group in the AC, including the General Manager of the company and the Financial Director. The rest of the company' members were prevented from participation in making decisions. To clarify, the final decisions concerning any subject in the company were made by these two key actors. Therefore, this group had a significant impact on the MACS, because it sometimes makes decisions without referring to other administrations in the company. The study also identified that power over resources was employed by the Chairman of the Board of Directors of the AC. The Chairman of the Board of Directors is an engineer and the same applies to the person acting as the General Manager of the Company who is interested in

hiring engineers for the company rather than other people who have different qualifications, such as accountants.

In the case of the BC, it was argued that the Libyan government, as represented by the Ministry of Finance, appointed some Financial Controllers who had worked in Libyan organizations as observers in the mid 1980s. The main task of the financial controllers was to monitor daily operations and implement tight controls on the procedures in the companies, including the estimated budgets. In this case, there was a conflict about power over resources between the senior management and the Financial Controllers. On one hand, the Financial Controller had been given the powers of signing cheques and thus they had obtained control of money. On the other hand, the senior management used its power over processes to prevent the Financial Controllers from participating in the decision -making processes. The results also revealed that there was power play between the management committee of the BC and the organizational actors, including the department's managers and accountants. This interplay of power affected the design and use of the MACS, such as the estimated budgets and the style of reports. Thus, the management committee of the BC used its power over processes.

It was also found out that there are conflicts between the administrations' managers in the BC. In a sense, the Financial Manager of the company is acting with complete freedom and without consulting other managers in the company concerning the recruitment of new staff, giving rewards without reference to other managers and giving financial subsidies from the value of the stationery without taking permission from the management committee. Thus, the Financial Manager used his power over resources (e.g., hiring new staff, rewards), as well as power over the processes of decision - making. Powers have also engendered a change in the costing and pricing system. As mentioned earlier, in

2005, the Director of the Internal Auditing Office cancelled an item of the costing and pricing system called the allocation of the rising / elevation of the fixed assets. So, this type of power could be considered as power of processes. Moreover, there was a conflict among the managers concerning the weakness of the quality control employees in applying the QMS based on the ISO 9001 standard. The ISO system was cancelled in 2010 at the requests of some managers in the BC, i.e., the disagreement among managers prevented the implementation of QMS based on the ISO 9001 standard.

Regarding **the resistance to change**, the study found out that there was no major objection or resistance from the AC's managers and employees regarding the implementation of strategic planning, the direct allocation of market costs and the QMS. On the contrary, the BC has not introduced a strategic planning system and the direct allocation of market costs, but some modifications have taken place that faced some resistance. To sum up, the study identified the factors causing resistance to MACS change in the studied companies. These resistant factors are: (i) the state's laws and regulations, (ii) qualifications and experience of the employees, (iii) resistance from the managers of the companies and (iv) mismanagement and financial and managerial corruption (see Section 8.8 for more details).

9.3 Contributions of the Study

The present study has made the following contributions to the existing literature in a number of ways. Firstly, the study contributes to the limited studies on the MACS change in developing countries in general and within the Libyan context in particular, although generalization from this study's findings is not the aim of this research. This study provides a wider and deeper understanding of the five components of MACS (including, planning, controlling, costing, directing and decision-making systems) and the influence

of various institutional factors (e.g., the social, cultural, economic and political context) on shaping these MACS in the Libyan public sector, particularly the state - owned manufacturing companies: the AC and the BC. For example, the study contributed to our understanding of how the incentive systems operate in the environment of the aforementioned organizations (the AC and the BC). In the case of the AC, the empirical evidence revealed that the incentive system is specifically referred to as the bonus payments, such as reward for workers, subsidies and advances or loaning (see Section 6.6.4.1 for more details). While in the case of the BC, the empirical investigation demonstrated that there is a regulation or a by-law relevant to the system of incentives and subsidies, such as rewards, tickets for Hajj or treatment abroad for work-related injuries or compensation for death (see Section 7.6.4.1 for more details). The study also contributes to the literature on management accounting as the study is carried out using comparative case studies between the two companies. This contribution responds to a specific call in the literature on management accounting by Zoubi (2011, p. 264), who states that:

“...future research can be extrapolated. In new Libyan circumstances, comparative case studies of two or more organizations might be useful especially if the organizations are under the same supervision body. This comparison would provide an in-depth understanding of their responses to the same new institutional pressures”.

Secondly, the majority of studies have focused on change in management accounting within organizations in developed countries (see for example, Innes and Mitchell, 1990, Cobb *et al*, 1995, Libby and Waterhouse, 1996, Burns and Scapens, 2000, Williams and Seaman, 2001 and Lukka, 2007), and most of them reviewed it as an outcome. However, these studies have given a little attention to the nature of change or different types of change. The current study therefore contributes to the extant literature through identifying

the nature of change or different types of change in management accounting (see also Sulaiman and Mitchell, 2005). The findings of this thesis indicate that change in the MACS is not a homogeneous or uniform phenomenon. The empirical evidence also reveals that the changes or developments occurred in traditional MACS practices, rather than advanced MACS, such as the ABC and the BSC.

Thirdly, the current study draws on new institutional sociology (NIS) perspective (DiMaggio and Powell, 1983, 1991) as a theoretical framework to interpret the findings. In a sense, the NIS is used to interpret how MACS operates in two Libyan state - owned manufacturing companies. NIS researchers believe that the institutional environment of the organization shapes the design and operation of practices such as MACS. The study has contributed to the increasing use of the NIS to explain the MACS (Collier, 2001, Hussain and Hoque, 2002 and Tsamenyi *et al*, 2006). The discussion provided in Chapter Eight of the thesis shows that, methodologically and empirically, the NIS is a suitable framework for explaining MACS practices of the two companies studied. Thus, the integration of institutional (coercive, normative and mimetic pressures), competitive and intra - organizational power factors is the main contribution made by this thesis to the NIS. As mentioned previously in Chapter Four, the earlier work of DiMaggio and Powell (1983) on the NIS has been criticized for ignoring market forces and intra - organizational power relationships. This limitation is being addressed in recent studies on the NIS (see for example, Collier, 2001 and Tsamenyi *et al*, 2006) and this thesis makes a theoretical contribution to this emerging literature on the NIS and MACS research.

Fourthly, the current study has adopted the case study approach to understand how MACS operates in two Libyan public companies in the industrial sector. It has used triangulation of qualitative research methods, including semi - structured interviews,

observation and document analysis. The qualitative research methodology employed in this study is based on Laughlin's (1995) framework; the "middle range thinking approach". Laughlin (1995, 2004) provides a useful framework for the positioning of accounting research as well as the selection of an appropriate methodology (see Chapter 5, see also Roslender, 2013). From a developing country's perspective, it has also been suggested that case studies are more appropriate to study MACS practices because of the prevalence of social and political factors (Uddin and Hopper, 2001 and Uddin and Tsamenyi, 2005). The case study method has been emphasized in the management accounting research as it provides an opportunity for the researcher to interact with the research environment (Hopper and Powell, 1985). In the current study, the use of case studies enabled the socio - economic and political issues to be revealed. Therefore, this thesis has made a methodological contribution to case study methodology in management accounting research.

Finally, many previous studies have explored the main reasons or causes of resistance to change in the management accounting process (see for instance, Scapens and Roberts, 1993, Siti - Nabiha, 2000 and Jansen, 2011). This thesis also contributes to knowledge as it is one of the studies that have attempted to identify the resistant factors to change in management accounting in the two cases of the aforementioned Libyan companies.

9.4 Limitations of the Study

The current study is subject to a number of limitations. The first limitation is that the research focused on only two Libyan manufacturing organizations (the AC and the BC) in the public industrial sector and thus the results cannot be generalized to other manufacturing organizations in Libya. It must, however, be stated that the objective of the study is not to provide a generalization but, instead, to give a broad understanding of how

MACS operate in the two companies. To overcome this limitation, the study would have adopted a large scale survey approach in order to statistically generalize the results to other settings.

A second limitation of the study is that the period of time devoted to the field study is too short (about 3 months) to understand the MACS change. Therefore, a longitudinal case study - based research using the institutional theory approach is needed to study change in management accounting. Conducting such studies needs at least two or three years which is not available for the researcher as a PhD student who has limited time for doctoral study. A third limitation of the study is that the researcher faced some difficulties in taping some of the interviews as some of the participants were not convinced that the researcher would keep the recording confidential. As a result, these difficulties and limitations have reduced the accuracy and depth of the information obtained.

9.5 Future Research

There are several implications of this study for future research. Firstly, the aim of the current study, as mentioned earlier, is not to generalize the results. Therefore, in order to be able to generalize the results to other manufacturing organizations in Libya more case studies on other manufacturing organizations are needed. Alternatively, future research could adopt survey approaches whereby a wider sample of organizations will be studied. By using the methods mentioned above, future research can also study change in management accounting in other public sectors (such as service, financial, oil, etc.) in Libya.

Secondly, this research might be replicated in other developing countries (a single country or comparing two or more countries) to provide further insight on the influence of country

- specific factors (country's characteristics) on management accounting and control practices. Thirdly, it would also be interesting and insightful to specifically compare change in management accounting during stable and turbulent conditions within the same setting.

Fourthly, future research could focus on alternative theoretical perspectives for the investigation of the process of change in management accounting such as agency theory, structuration theory and actor - network theory.

Finally, the findings of this research indicated that there is no evidence of the use of so - called advanced management accounting techniques such as the ABC and the BSC. Therefore, future research should pay attention to the possibility of implementing such techniques in Libyan organizations and other developing countries.

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Appendices

Appendix 1: Letter of Introduction



Application for permission to gain access to data

To Whom It May Concern:

Date: 30 September 2012

Dear Sir/Madam

Research project on Management Accounting and Control systems change in Libyan state-owned Manufacturing Companies

I would like to introduce myself; my name is Alhashmi A. Ali, a lecturer in Accounting at the Faculty of Economics, University of Azawiya, Libya. Currently, I am a PhD student at the University of Dundee, Department of Accounting and Finance, Scotland, UK.

I am writing to ask for your assistance in a research project I am doing for my PhD, and I would like to use your organization as case study for my research. The focus of this research is on management accounting and control system changes in Libyan public sector organizations. This study will contribute to the knowledge of management accounting by exploring the state of the design and operation of management accounting and control systems in their dynamic environmental organizational contexts and through different hierarchical levels of the organization.

The objectives of this research are:

1. To identify and analyze the different dimensions of management accounting change in management control systems (planning, controlling, costing, directing and decision-making) in the Libyan company;
2. To investigate and discuss the causal factors, external (macro) factors and the internal (micro) factors, which caused the change of management accounting and control systems in the Libyan company; and
3. To explain the factors that contributes to management accounting change resistance in any of management accounting and control systems.

In order to do this, a case study strategy has been adopted for the purpose of this study, because it offers the possibility of a more holistic understanding of the nature, contexts, and processes of management control practices from the point of view of the participants. The data will be collected through studies of organizational documents, interviews with the company personnel, and observation of management meetings.

I would be grateful if you or the persons in your organization could find the time for an interview lasting about one hour, as well as acquiring documents relevant to my research.

I would like to assure you that any information you give me will be used only for academic purposes, and will be treated in reasonable confidentiality concerning individuals and data.

Thank you very much for your precious time

Yours Sincerely

Alhashmi Ali

PhD Student

Appendix 2: Letter to Organizations



School of Business

ACCOUNTING & FINANCE

5 October 2012

TO WHOM IT MAY CONCERN

Re: Mr Alhashmi Ali

Mr Alhashmi Ali is currently studying for his PhD in the Division of Accounting and Finance at Dundee University, and we are his supervisors. He is undertaking research entitled "An Empirical Investigation of Management Accounting and Control System Changes in Libyan State-Owned Manufacturing Companies: An Institutional Perspective". This research will provide valuable understanding of the actual and potential usefulness of management accounting in the companies taking part in the study.

For this research, Mr Alhashmi will need to gain access to your organization as case study and to have discussions with their managers and employees. I would be very pleased if you could help Mr Alhashmi in this respect.

All information obtained in the course of the research will be treated in the strictest confidence and only aggregate data will be used in writing up the research.

Yours faithfully

Professor Jim Haslam
Professor of Accountancy
School of Business
Department of Accounting
Email: j.haslam@dundee.ac.uk

Professor Robin Roslender
Professor of Accounting & Finance
School of Business
Department of Accounting
Email: r.roslander@dundee.ac.uk

Appendix 3: Semi-Structured Interviews Questions



Guiding Questions for Semi-Structured Interviews

An Empirical Investigation of Management Accounting and Control Systems Change in Two
Libyan State-owned Manufacturing Companies: An Institutional Perspective

By

Alhashmi A. Ali

PhD Student

Email: a.i.ali@dundee.ac.uk

School of Business

Department of Accounting and Finance

1 Perth Road

Dundee, DD1 4HN

Scotland, UK

Semi-Structured Interview Questions

Part (A): Personal Information for an Interviewee

1. Name (Optional).....
2. Age: ☐ 20 or less ☐ 21 – 30 ☐ 31 – 40 ☐ 41 – 50 ☐ over 50
3. Name of the Organization.....
4. Type of Business.....
5. Position in the organization.....Experience (years).....
6. Number of Employees in your Organization.....
7. Educational Qualifications.....
8. Date..... Time..... Place.....
9. Can the interview be taped?

Part (B): Management Accounting and Control systems (MACS)

1. What types of MACS exist in your organization and for what purpose?
2. How are the MACS established, approved and implemented?
3. How are the following covered in the MACS;
 (a) Planning, (b) controlling (c) costing (d) directing (e) decision-making?
4. How do you measure performance in your organization?
5. Do existing MACS provide all the information required and how is the information used?
 (e.g. decision-making).
6. How do managers and employees evaluate the importance of MACS?

Part (C): Change in the MACS and Dimensions

1. Have there been any changes in any of the MACS in your organization over recent years?
2. What were the drivers for change in the MACS?
3. How do practitioners classify MACS changes in your organization?
4. When were the changes implemented and who decide how to implement changes of MACS in your organization?
5. To what extent do employees participate in the implementation?
6. What effects have these changes had on the organization?
7. Do the changes include any: (i) modification in the management accounting information or outputs, (ii) introduction of new techniques to replace existing ones; (iii) introduction of new techniques where no management accounting system previously existed; (iv) modification of the technical nature of a management accounting system; (v) other change dimensions?

8. Was any of the MACS removed and not replaced (reductionist)?

Part (D): Factors Influencing Management Accounting Practices

1. Do you think that all Libyan state-owned manufacturing companies should or should not adopt the same MACS or practices?
2. What are the institutional pressures facing your organization to adopt similar practices to those adopted by other organizations?
 - Economic, social and cultural factors.....(how)
 - Competitive norms.....
 - Political pressures and organizational legitimacy.....
 - Stakeholders pressures.....
 - Leading organizations' pressures (e.g. UN, WTO, and ISO).....
 - Copying best practices from other organizations.....
 - Professional pressures.....
 - Organizational characteristics (e.g. size, type of company).....
 - Government's law and regulations.....
 - Other.....
3. In your opinion, what other external environmental factors (e.g. dissatisfied customers, market pressures) influence the way MACS are designed and used? How do they exert influence?
4. In your opinion, what internal organizational factors have driven changes in MACS or practices and how? (E.g. organizational structure, size, managerial policies, production technology, problems in existing techniques, deterioration of financial performance, personality of managers, etc.).

Part (E): Resistance to Change

1. Was there any resistance toward changes in MACS?
2. Was there a need for an agent of MACS change to get support from the senior management and be part of the process? (e.g. finance staff in the initial stage of change).
3. Were the MACS changes headed by staff recruited from outside the organization?
4. Were the characteristics of the existing MACS rules and routines easily modified and amendable toward changes without any conflict?
5. What other factors influenced resistance to change in MACS and how did you deal with them?

Part (F): Other Information

Are there any other comments that you would like to make regarding management accounting and control system changes in your organization that have not been discussed?

Thank you for your precious time

Appendix 4: List of Sub-Systems in MACS

List of Sub-Systems in MACS

Planning Systems

1. Budgeting
2. Operations planning (production)
3. Capital budgeting
4. Strategic planning
5. Other planning systems

Controlling Systems

6. Individual or team-based performance measurement
7. Organizational performance measurement
8. Measurement of performance in terms of quality
9. Measurement of performance in terms of customer Satisfaction
10. Other performance measures

Costing Systems

11. Direct allocation of manufacturing overhead
12. Direct allocation of marketing costs
13. Direct allocation of other overhead
14. Internal (department or divisional) product transfers
15. Other costing systems

Directing Systems

16. Reward systems- bonuses
17. Reward systems- pay-for-performance plans
18. Other reward systems

Decision-Making Systems

19. Information reported more frequently
20. Use of more non-financial measures
21. Information reported more broadly
22. Other changes to reporting systems
23. Other changes to systems that do not appear on this list

Appendix 5: Semi-Structured Interviews Questions in Arabic

أسئلة للمقابلات

التحقق الميداني من التغيرات في أساليب الرقابة و المحاسبة الإدارية في الشركات الصناعية الليبية العامة: من وجهة النظر التأسيسية

الجزء الأول: معلومات شخصية عن المشارك

1. اسم المشارك
2. العمر (اختياري).....
3. اسم الشركة
4. نوع أو طبيعة الصناعة
5. وضع الموظف في الشركة.....الخبرة
6. عدد الموظفين في الشركة.....
7. المؤهل التعليمي
8. التاريخالوقت.....المكان
9. هل تسمح لي بتسجيل المقابلة.....

الجزء الثاني: أساليب الرقابة و المحاسبة الإدارية

1. ما هي أنواع أساليب او انظمة الرقابة و المحاسبة الإدارية الموجودة في شركتكم وما هي إغراضها؟
2. كيف تم تأسيس أساليب الرقابة و المحاسبة الإدارية و كيف تمت الموافقة عليها و تنفيذها؟
3. كيف أساليب الرقابة و المحاسبة الإدارية غطت كل من العناصر التالية: التخطيط – الرقابة – التكلفة – التوجيه – صنع القرار؟
4. ما هي طرق قياس الأداء في شركتكم؟
5. هل أساليب الرقابة و المحاسبة الإدارية توفر كل المعلومات المطلوبة و كيف هذه المعلومات استخدمت؟ (على سبيل المثال صنع القرار).
6. كيف المدراء و الموظفين يقيموا أهمية أساليب الرقابة و المحاسبة الإدارية؟

الجزء الثالث: التغير في أساليب الرقابة و المحاسبة الإدارية و الأبعاد

1. هل كانت هناك أي تغير في أي من أساليب الرقابة و المحاسبة الإدارية في شركتكم في السنوات الأخيرة؟ (على سبيل المثال اسلوب او نظام الميزانية – نظام التسعيرة – نظام المكافآت – نظام التكلفة- نظام المسؤولية- نظام قياس الاداء المالي و غير المالي.....الخ)
2. ما هي الدوافع للتغيير في أساليب الرقابة و المحاسبة الإدارية؟
3. كيف الممارسين أو المحاسبين يصنفون هذه التغيرات في أساليب الرقابة و المحاسبة الإدارية في الشركة؟
4. متى تم تنفيذ هذه التغيرات في أساليب او انظمة الرقابة و المحاسبة الإدارية و من كان يقرر لتنفيذها في شركتكم؟
5. إلى أي مدى الموظفين يشاركون في هذا التنفيذ؟
6. ما هي الآثار التي أحدثتها هذه التغيرات على الشركة؟
7. هل هذه التغيرات تشمل أي من (حدد ايها حدث من امذكورة ادناه):
 - تعديل في معلومات المحاسبة الإدارية أو المخرجات
 - إدخال أساليب جديدة للمحاسبة الإدارية لتحل محل الأساليب الموجودة
 - إدخال أسلوب جديد للمحاسبة الإدارية الذي لم يوجد سابقا في الشركة
 - تعديل في الطبيعة الفنية من أسلوب المحاسبة الإدارية
 - هل هناك نوع آخر للتغيير في الأساليب الرقابية الإدارية

8. هل هناك أي تغيير في أساليب الرقابة و المحاسبة الإدارية أزيل بدون إحلال أسلوب آخر؟

الجزء الرابع: عوامل مؤثرة على ممارسات المحاسبة الإدارية

1. هل تعتقد أن كل الشركات الصناعية الليبية العامة يجب أو لا يجب أن تتبع نفس أساليب الرقابة و المحاسبة الإدارية أو الممارسات؟
2. ما هي الضغوط التأسيسية التي تواجه شركتكم لتتبع نفس الممارسات أو الأساليب التي اتبعت في منظمات أخرى؟ وضح كيف أثرت أي من هذه الضغوط أو العوامل (المذكورة أدناه) على تغيير أسلوب أو نظام المحاسبة الإدارية:-
 - العوامل الثقافية و الاجتماعية و الاقتصادية
 - الأعراف التنافسية
 - الضغوط السياسية و الشرعية التنظيمية
 - ضغوط أصحاب المصالح
 - ضغوط المنظمات الرائدة (منظمة الأمم المتحدة – منظمة التجارة العالمية)
 - تقليد أو إتباع أفضل الممارسات أو الأساليب من منظمات أخرى
 - الخصائص التنظيمية (الحجم – نوع الشركة)
 - ضوابط و فوائين و لوائح الدولة الليبية
 - عوامل أخرى
3. في رأيك. ما هي العوامل البيئية الخارجية الأخرى (على سبيل المثال عدم رضا الزبائن- ضغوط السوق) التي أثرت على تصميم و استخدام أسلوب الرقابة و المحاسبة الإدارية المتبع في شركتكم؟ و كيف هذه العوامل أثرت؟
4. في رأيك. ما هي العوامل التنظيمية الداخلية في الشركة التي دفعت أو أدت للتغيير في أساليب الرقابة و المحاسبة الإدارية أو الممارسات و كيف أثرت؟ (على سبيل المثال الهيكل التنظيمي- حجم الشركة- السياسات التنظيمية- تكنولوجيا الإنتاج- المشاكل في الأساليب المحاسبية الإدارية الموجودة- تدهور في الأداء المالي- شخصية المدراء).

الجزء الخامس: المقاومة للتغيير في أساليب الرقابة و المحاسبة الإدارية

1. هل كانت هناك أي مقاومة اتجاه التغييرات في أساليب أو انظمة الرقابة و المحاسبة الإدارية؟
2. هل كانت هناك حاجة للعامل أو موظف من خارج الشركة لإجراء عملية التغيير في أسلوب الرقابة و المحاسبة الإدارية ونال على دعم من الإدارة العليا في الشركة؟
3. هل كانت عملية التغييرات في أساليب الرقابة و المحاسبة الإدارية مروسة من موظفين يعملون خارج الشركة؟
4. هل كانت الخصائص و اللوائح و الروتين في أساليب الرقابة و المحاسبة الإدارية الموجودة في الشركة قد عدلت بسهولة اتجاه تلك التغييرات بدون أي تعارض؟
5. ما هي العوامل الأخرى التي سببت مقاومة للتغيير في أساليب أو انظمة الرقابة و المحاسبة الإدارية؟ و كيف انتم تتعاملون مع هذه العوامل المسببة للمقاومة؟

الجزء السادس: معلومات أخرى

هل لديك أي تعليقات أخرى ترغب أو تود أن توضحها بخصوص التغييرات في أساليب الرقابة و المحاسبة الإدارية في شركتكم و التي لم نناقشها؟

شكرا على حسن تعاونكم و على وقتكم الثمين

طالب الدكتوراه | الهاشمي ابوبكر عبدا لقادر علي. جامعة دندي - بريطانيا

Email/ alhashmi772000@yahoo.com

Appendix 6: illustrates Managers, heads and accountants who conducted interviews in the First Company (AC)

The Participants from AC

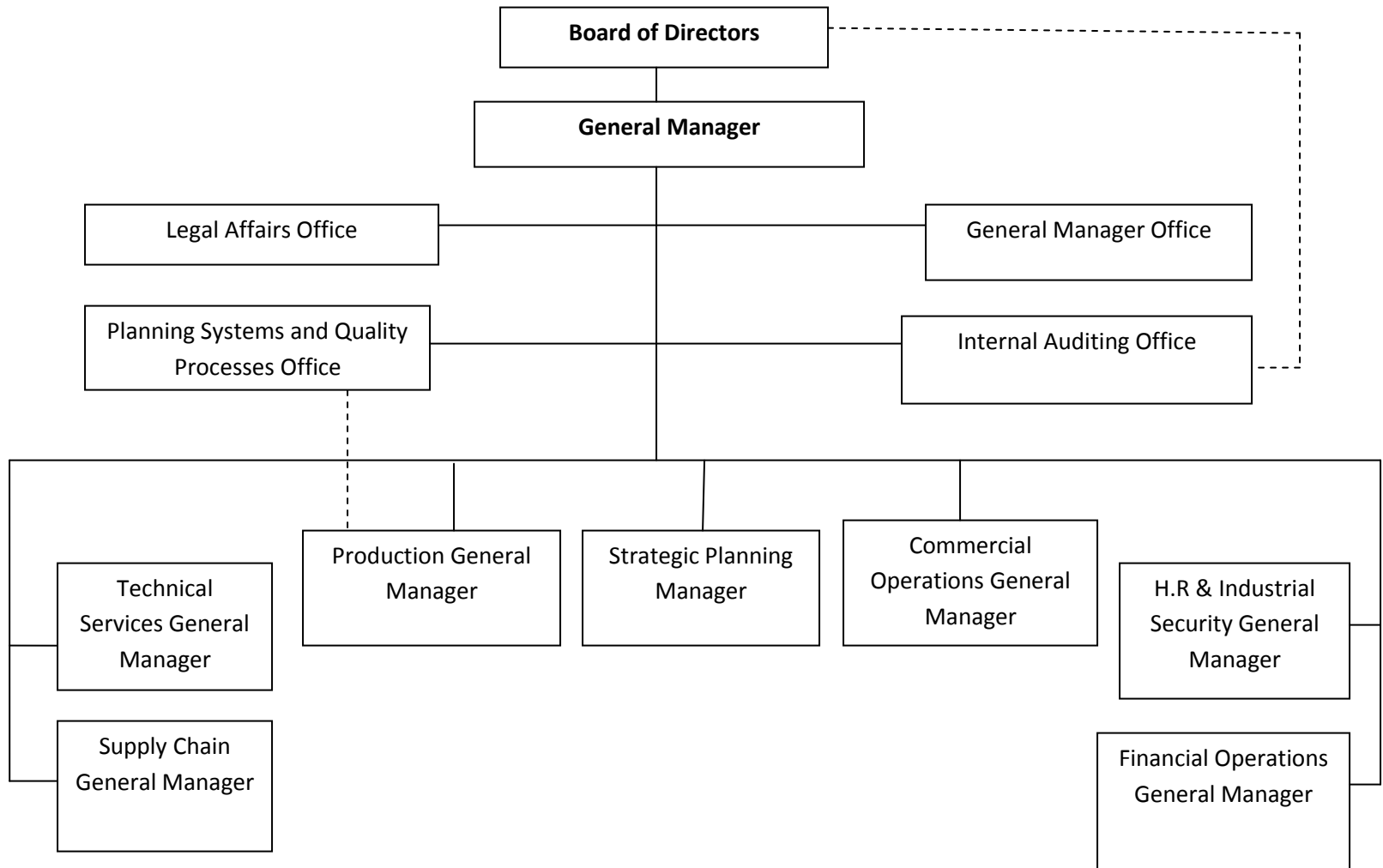
1. Director of Internal Auditing Office
2. Internal Controller
3. Director of Human Resources
4. Commercial Operations General Director
5. Director of Marketing
6. Strategic Planning Director
7. Director of Quality Control
8. Financial Operations General Director
9. Director of Production
10. Director of Accounting
11. Head of Balance Sheet Department
12. Costs and Business Control Director
13. Costs Accountant
14. Director of Purchases
15. Head of Overheads and Commercial Cost Control Department
16. Head of the department of the Direct Material Purchasing
17. Financial Consultant

Appendix 7: illustrates Managers, heads and accountants who conducted interviews in the Second Company (BC)

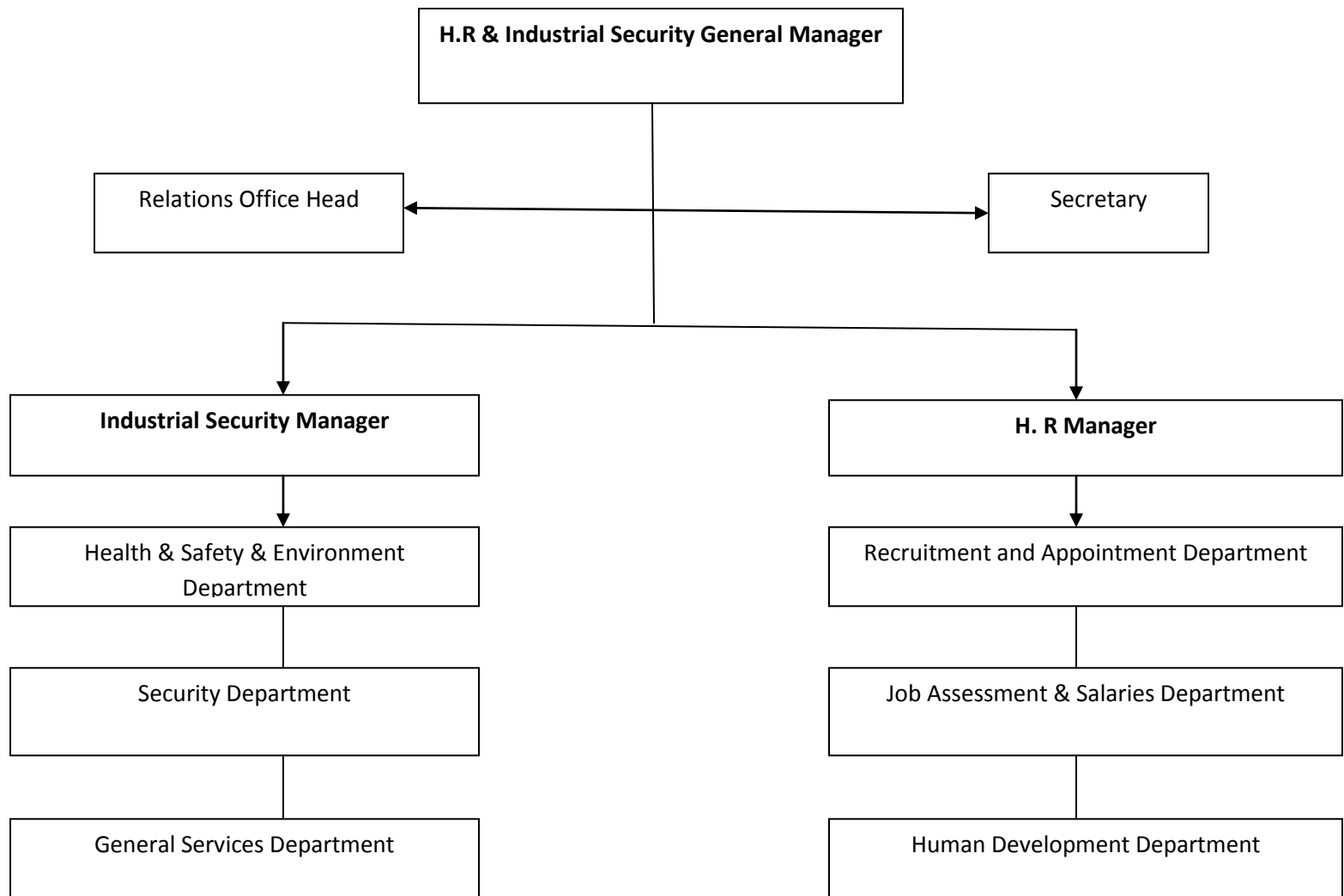
The Participants from BC

1. Director of Internal Auditing Office
2. Director of Planning and Follow-Up Office
3. Director of Quality Control Office
4. Director of Administrative and Financial Affairs
5. Head of the department of General Accounts and Balance Sheet
6. Head of the department of Costs and Inventory Control
7. Financial and Administrative Officer.
8. Costs Accountant
9. Head of the Department of the Employees Affairs and Training
10. Director of Commercial Affairs
11. Head of Purchases Department
12. Head of Stores
13. Director of Production and Technical Affairs
14. Head of Marketing and Export Department
15. Counsellor Legal

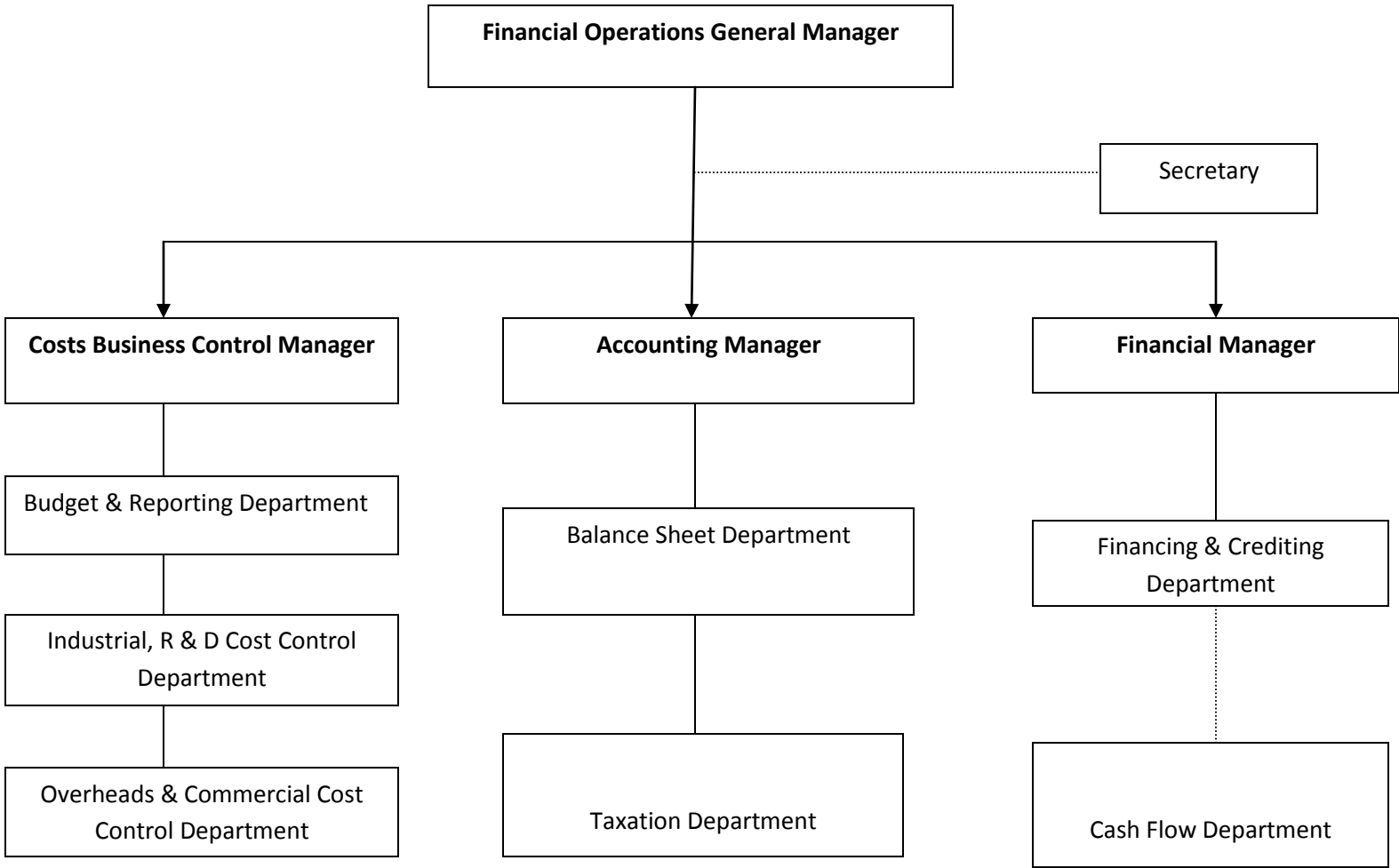
Appendix 8: The Current Organizational Structure of AC



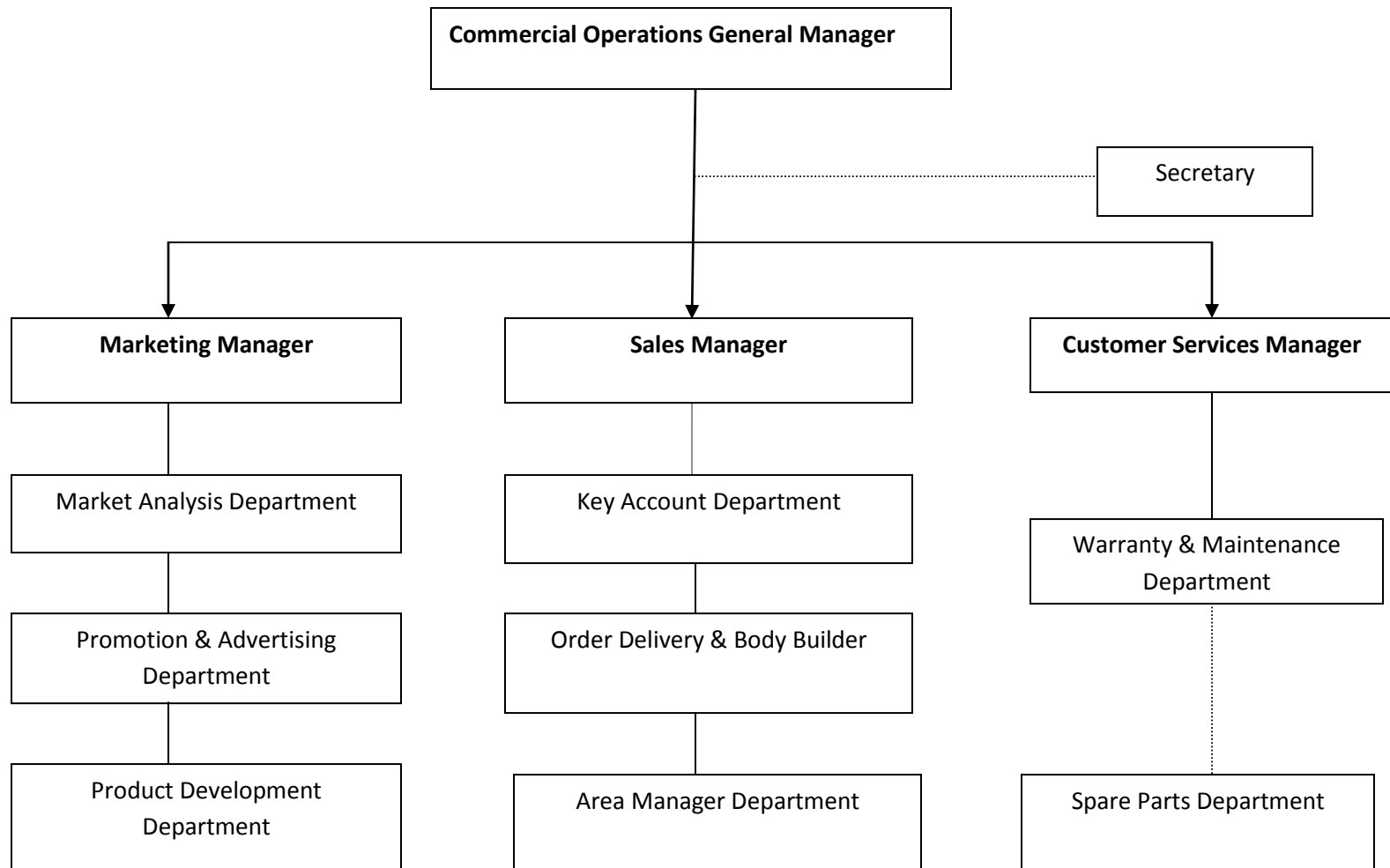
Appendix 8 (Continued)



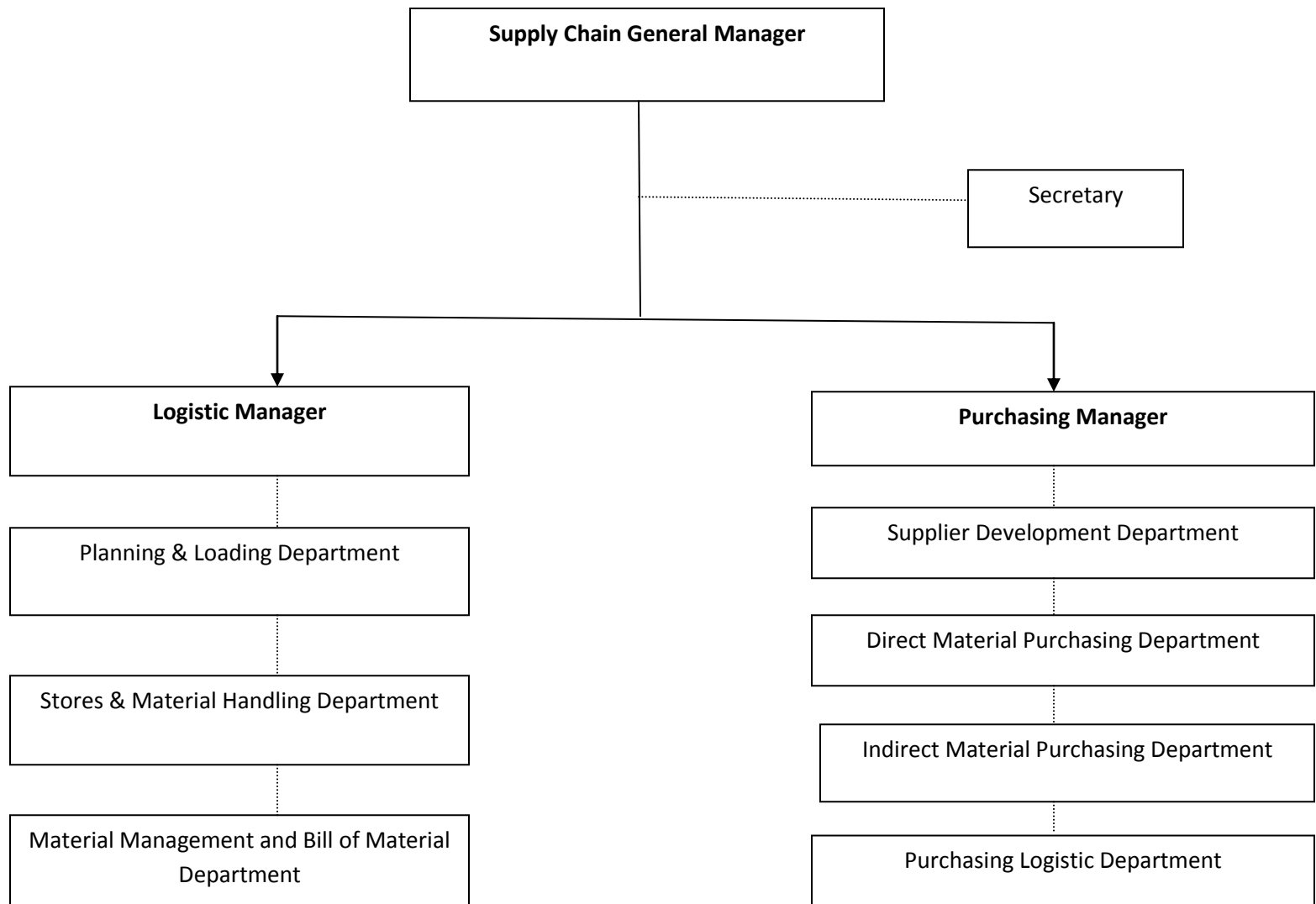
Appendix 8 (Continued)



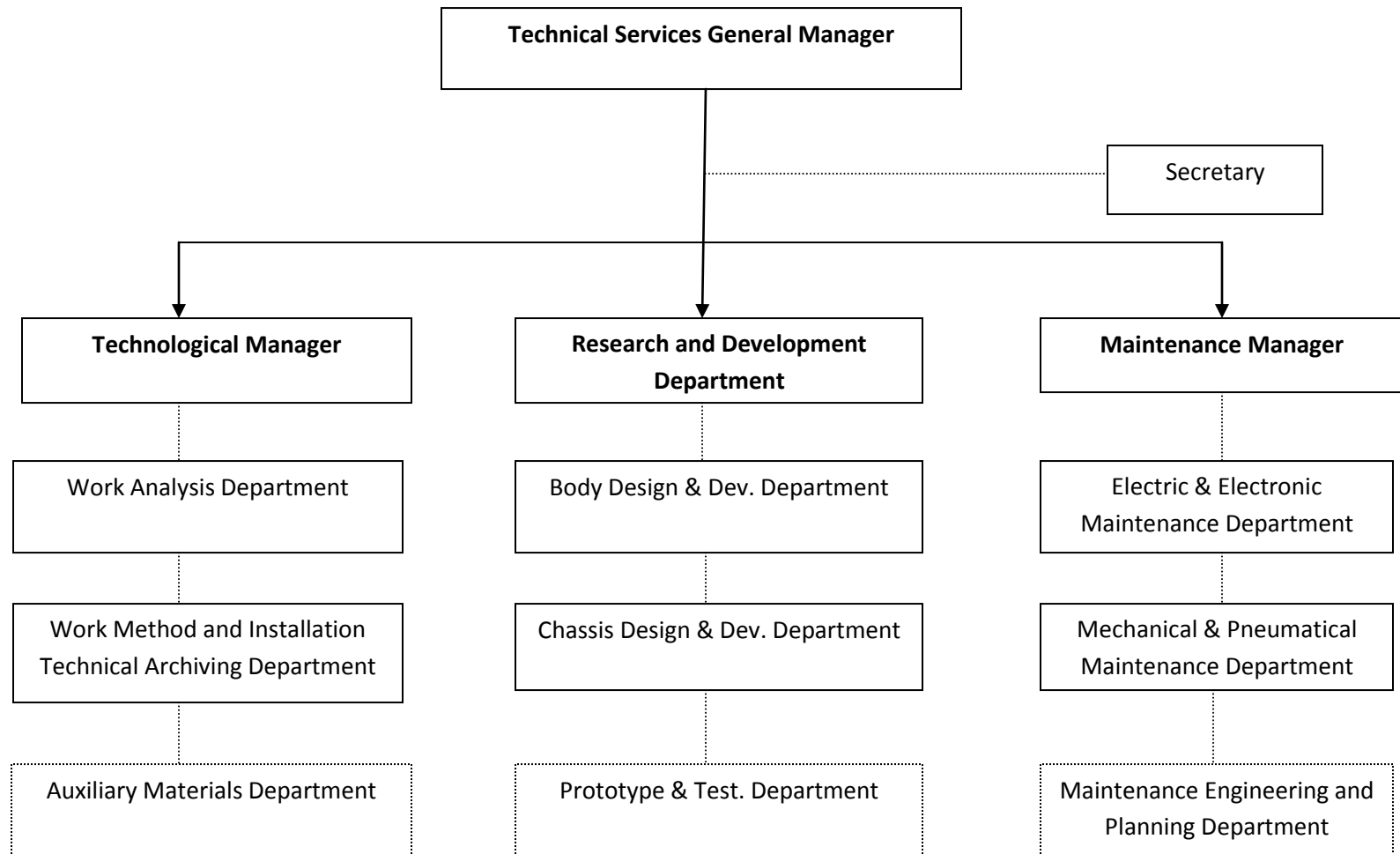
Appendix 8 (Continued)



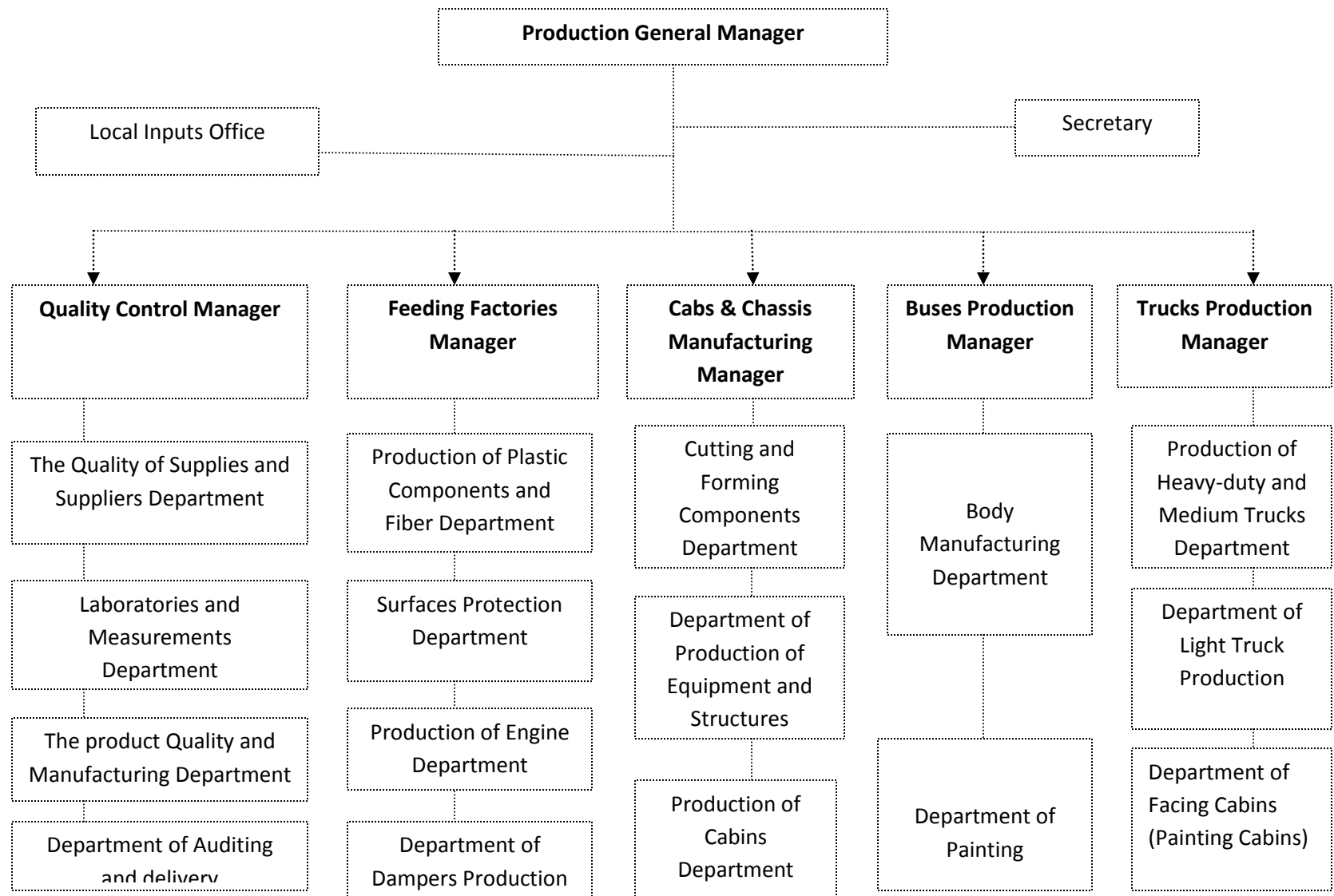
Appendix 8 (Continued)



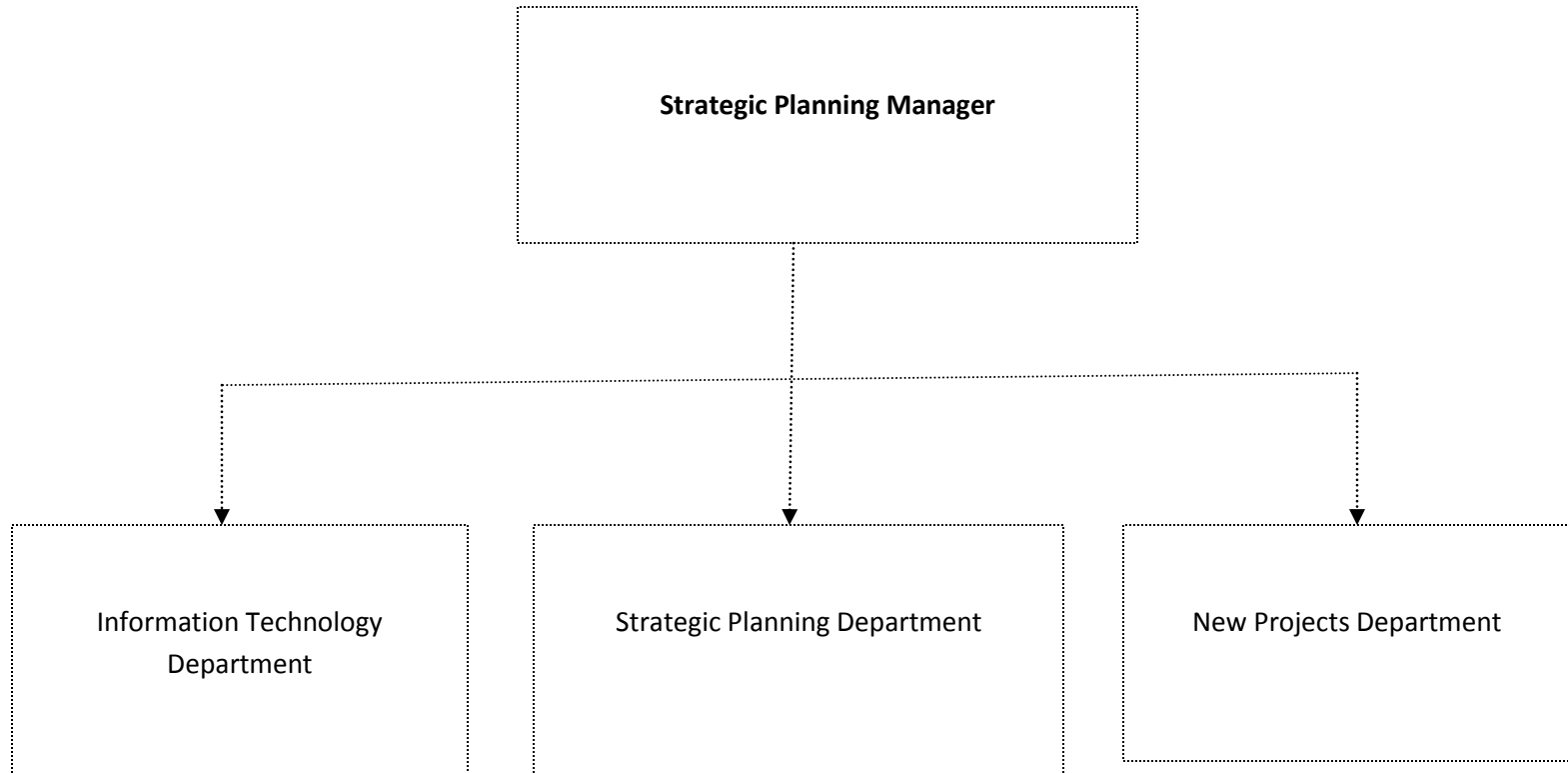
Appendix 8 (Continued)



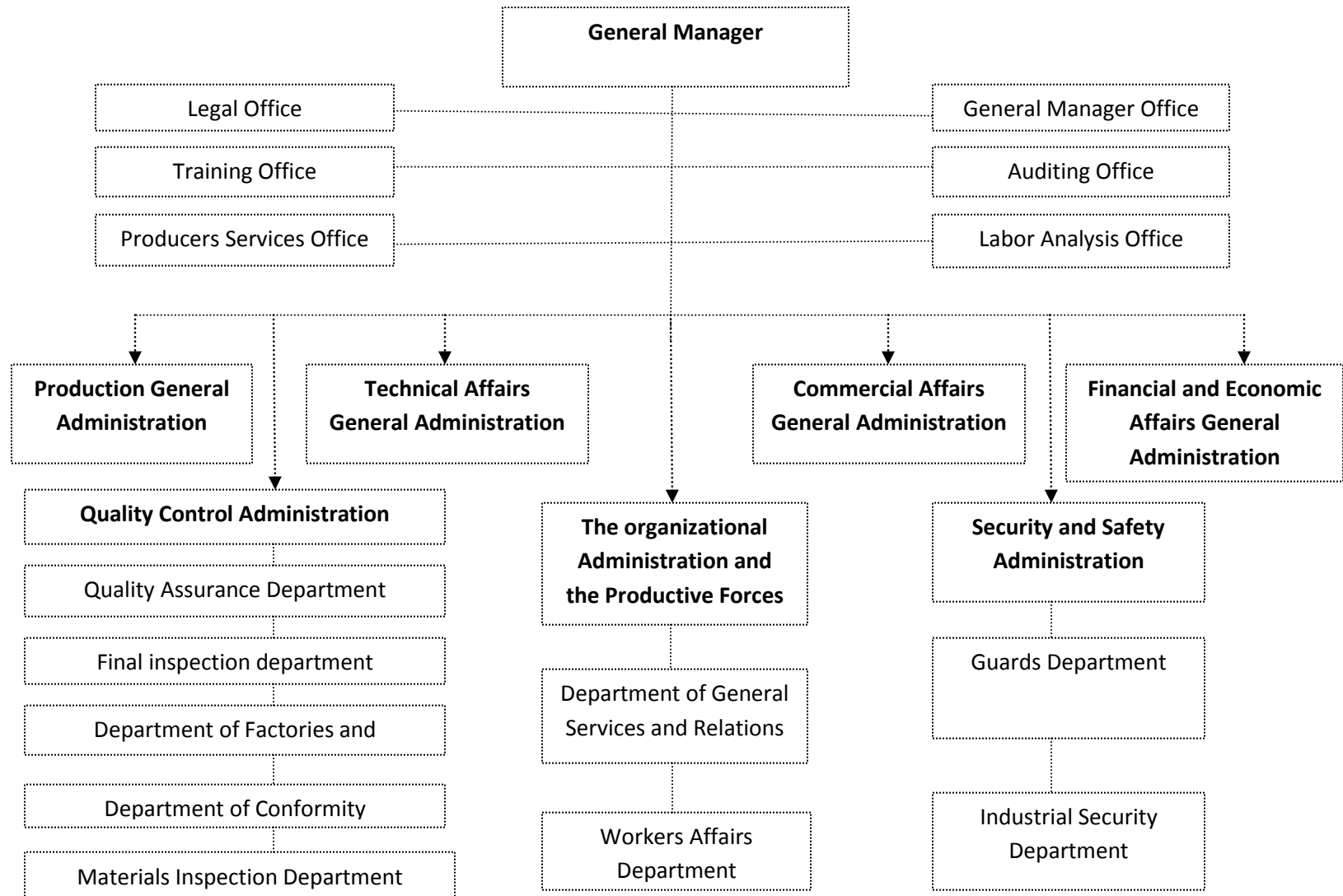
Appendix 8 (Continued)



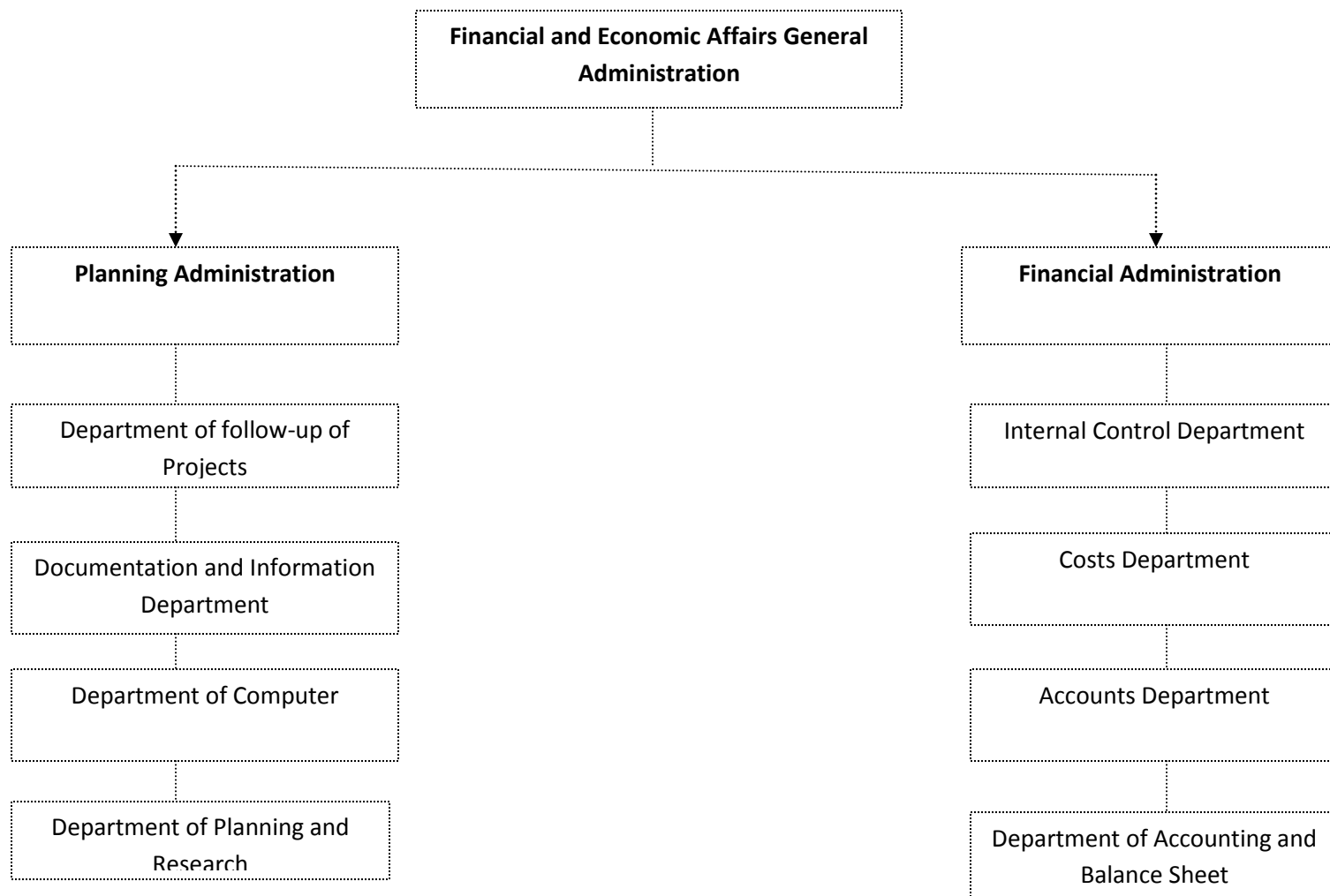
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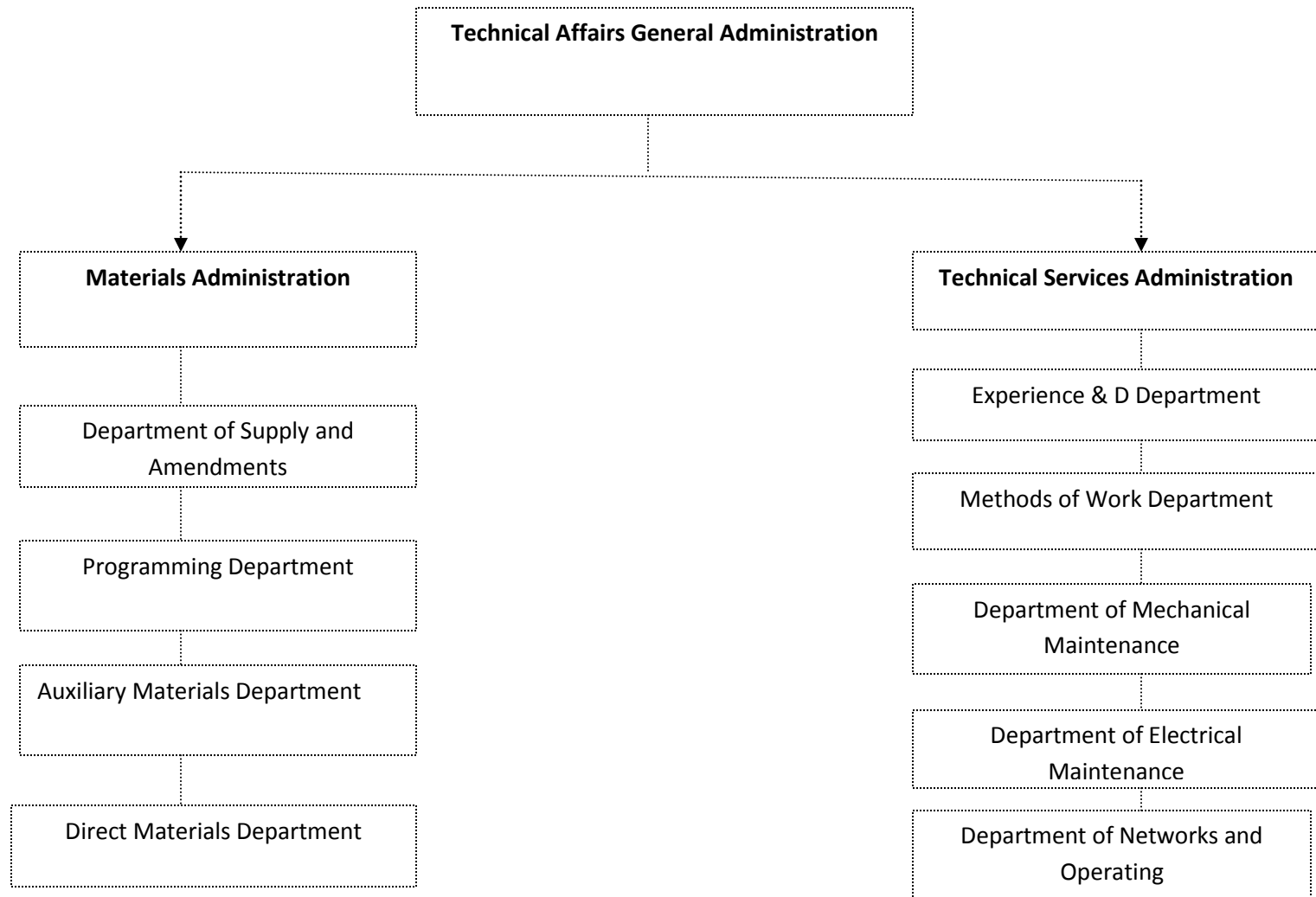
Appendix 9: The Previous Organizational Structure of AC



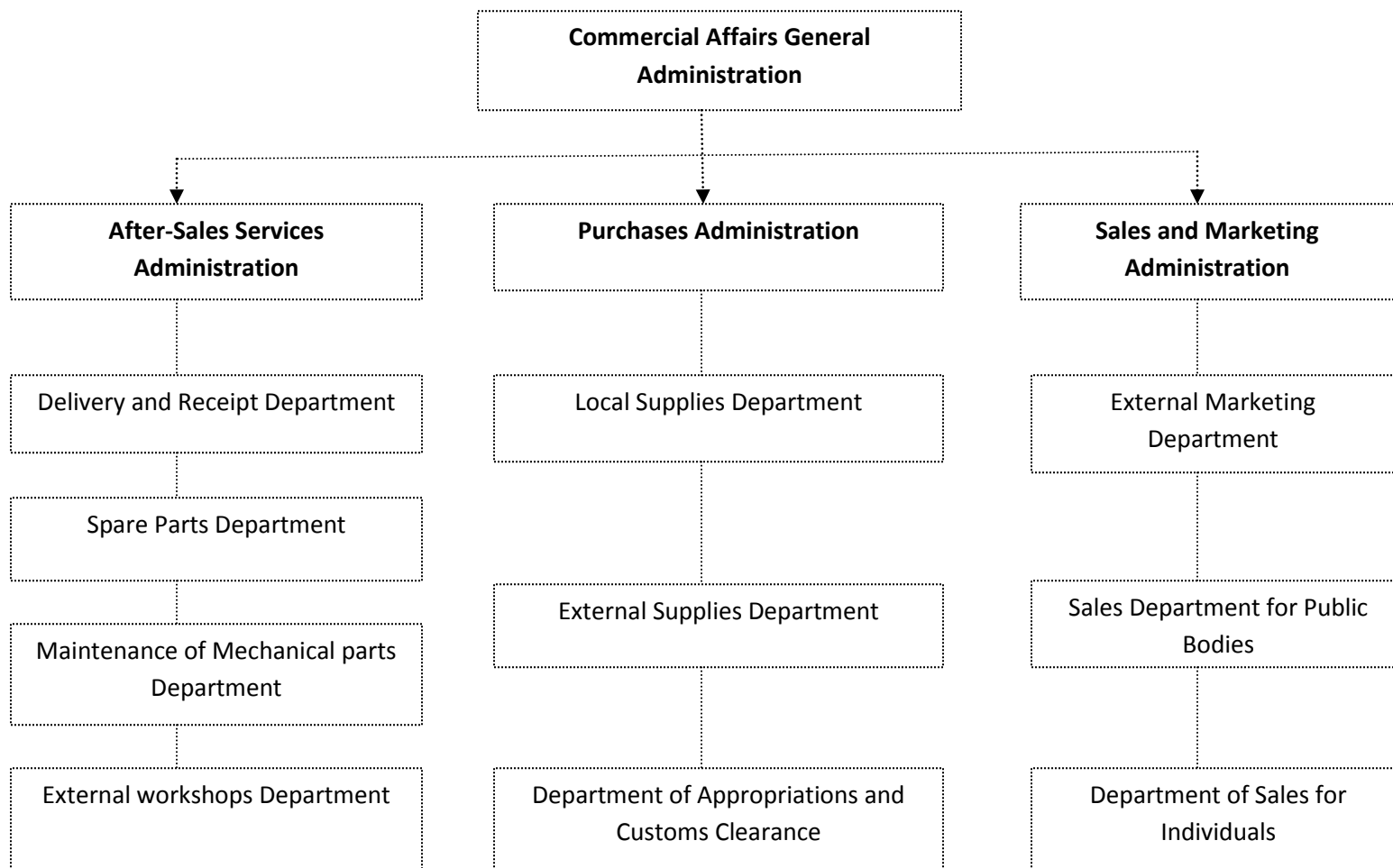
Appendix 9 (Continued)



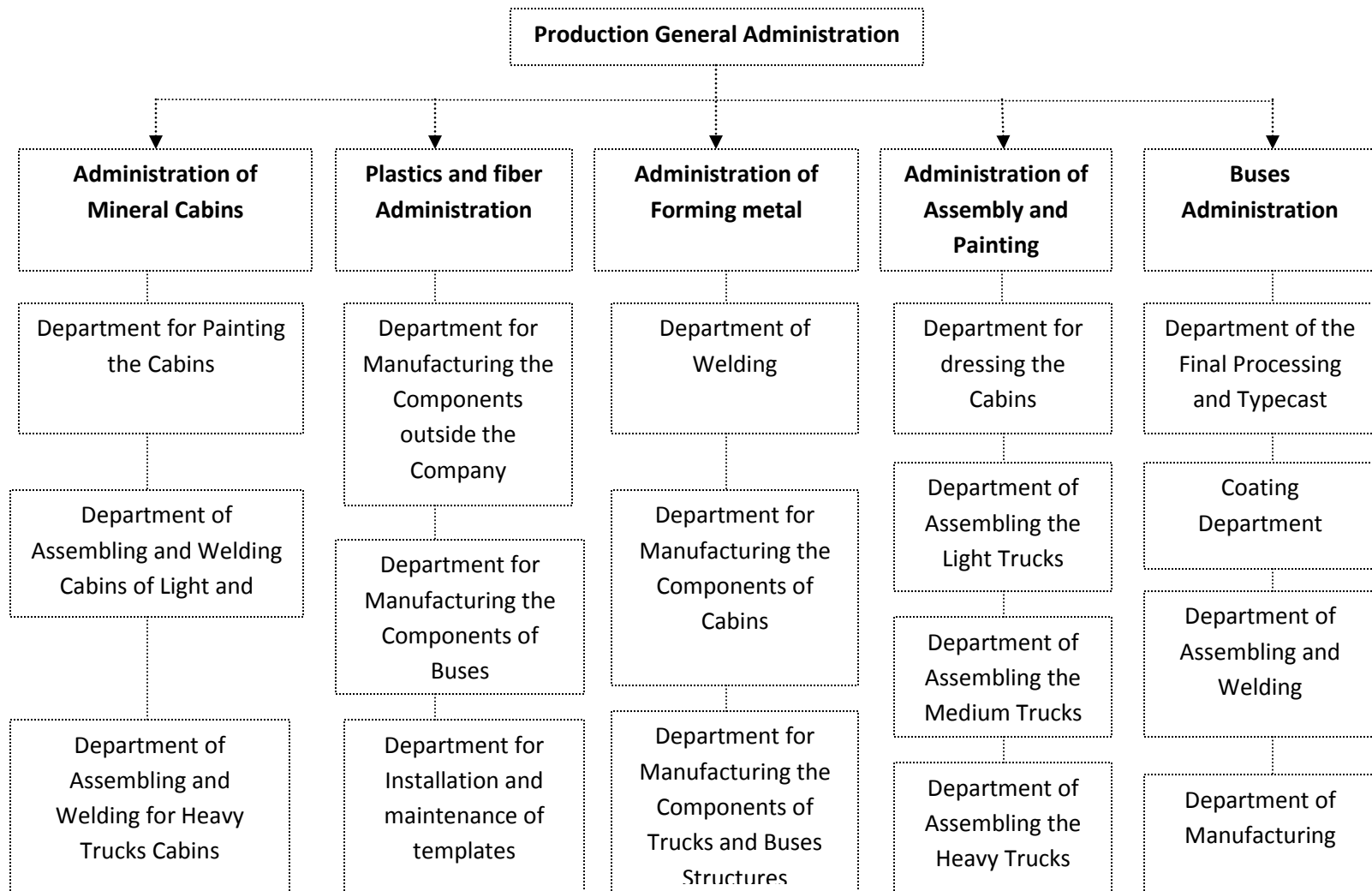
Appendix 9 (Continued)



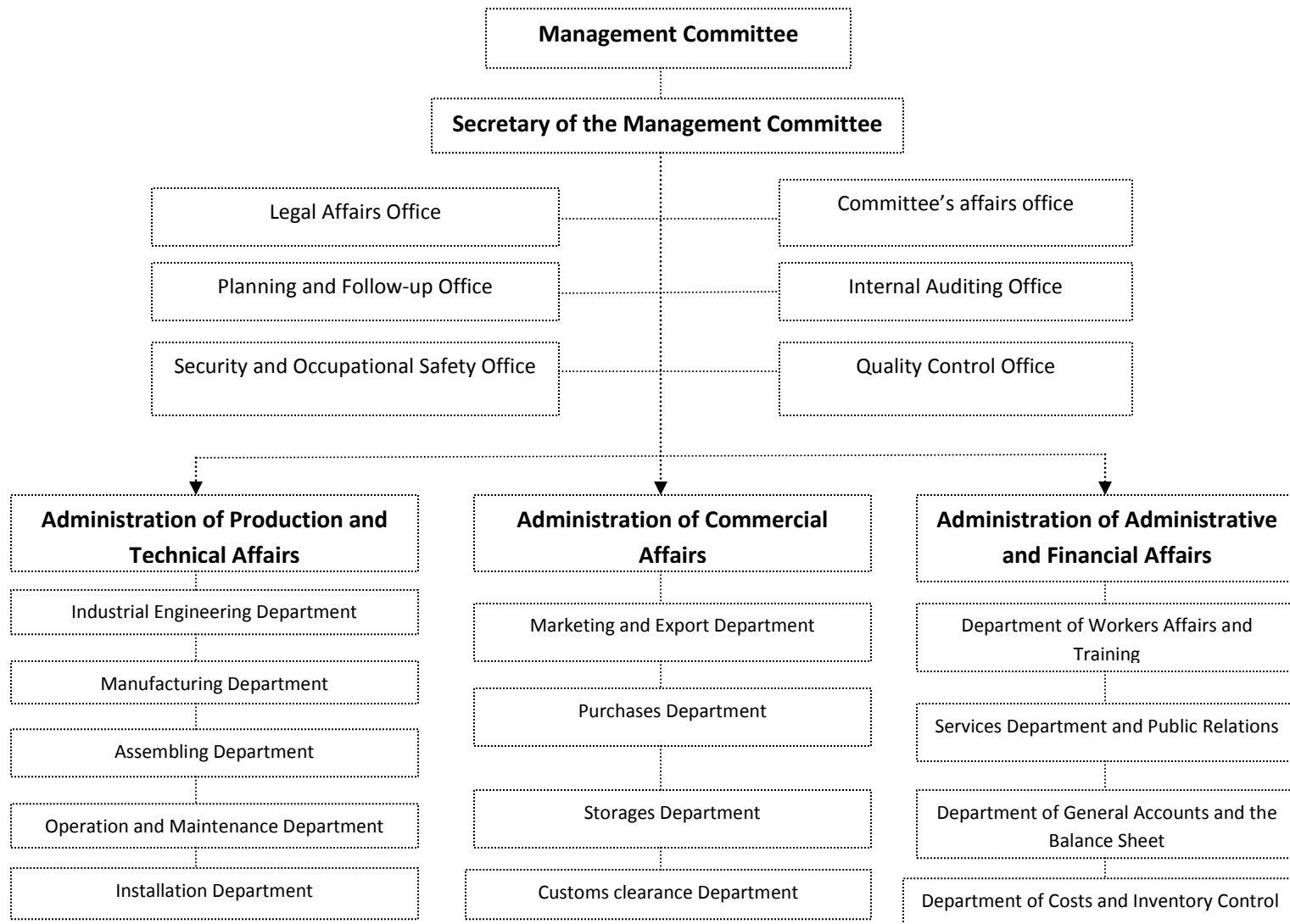
Appendix 9 (Continued)



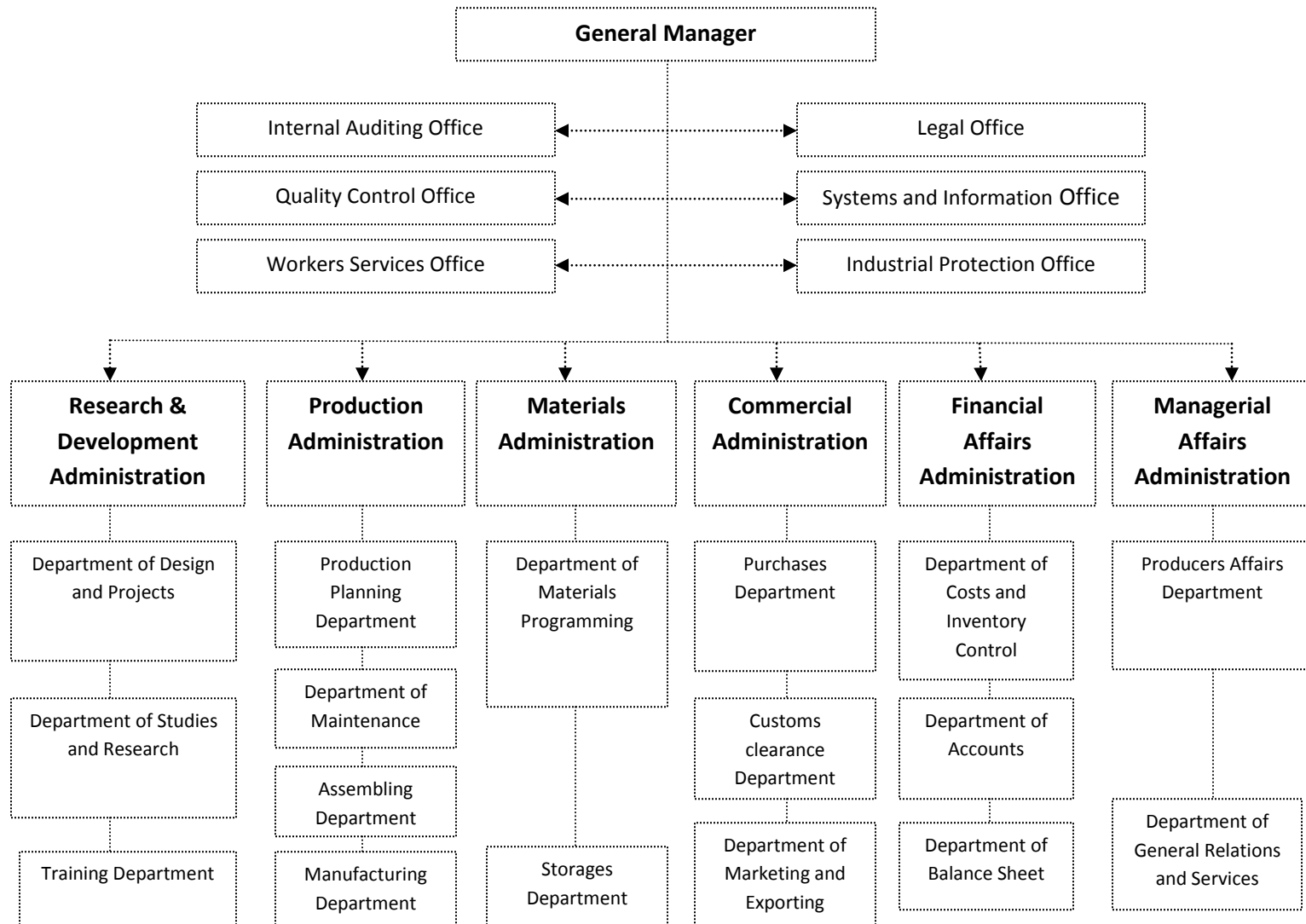
Appendix 9 (Continued)



Appendix 10: The Current Organizational Structure of BC



Appendix 11: The Previous Organizational Structure of BC



Appendix 12: List of Documents

Some documents have been picked up related to the first case study AC:

1. Report provides General Information about the First Company, AC.
2. Proposal of the Development of Financial Administration, including the Finance Administration, Cost Administration and Accounting Administration.
3. The Estimated Budget from 2008 to 2011 for the Industrial Activity.
4. The Estimated Cash Budget from 2008 to 2010.
5. The New Organizational Structure of the Company (the Current Organizational Structure).
6. The Old Organizational Structure of the Company.
7. Framework of Strategic Planning 2009-2014.
8. Report of Auditing for the Fiscal Year 31-12-2008, 2009 and 2010.
9. Card Description Function related to the Manager of Internal Auditing Office.
10. Card Description Function related to the Head of Strategic Planning Department.
11. Job Description of the Company.
12. Trading Account and the Profit and Loss Account for 2009 and 2010.
13. Document shows the Requirements of Quality Management System.
14. Model to evaluate the Efficiency of the Performance of the Quality Management System Process and the Environment.
15. The Model for requesting a Cash Advance.
16. The Model of Questionnaire on Customers' opinions regarding Quality of Service in the Company.
17. The Model of Questionnaire on Customers' opinions regarding the Quality of Products.

18. Document concerning the Financial Subsidies, Incentives and advances.
19. Production Administration's Reports from 2003 to 2010.

Some documents have been picked up related to the first case study BC:

1. Job Description of the Company.
2. Document shows General Information about the Company.
3. The New Organizational Structure of the Company (the Current Organizational Structure).
4. The Old Organizational Structure of the Company.
5. The Estimated Budget from 2008 to 2011.
6. The Balance Sheet form 31-12-2005 to 31-12-2011.
7. The Trading Account and the Profit and Loss Account for 2009 and 2011
8. Report of Internal Auditor form 2004 to 2012 (annual and quarterly)
9. The Model for preparing the Pricing System.
10. Costs Accounting System within the Company.
11. Comprehensive Report about the Company for Year 2004 and Year 2012.
12. Report about the Efficiency of the Employee within the Company.
13. Document Concerning the Disbursement of Incentives and Subsidies in the Company.
14. Summary of Estimated Revenues and Expenses from 2008 to 2012.
15. Monitoring the Actual Expenditure with the Estimated Expenditure from 2008 to 2012.